

# Leon County

# Board of County Commissioners

301 South Monroe Street, Tallahassee, Florida 32301 (850) 606-5302 www.leoncountyfl.gov

Purchasing Division 2284 Miccosukee Road Tallahassee, Florida 32308 (850) 606-1600

Commissioners

BILL PROCTOR

District 1

JANE G. SAULS

District 2

July 23, 2010

JOHN DAILEY

District 3

District 4

RE:

Bid Title: Woodville Community Center Library Addition

Bid No: BC-07-29-10-23

Opening Date: Thursday, July 29, 2010 at 2:00 PM

**BOB RACKLEFF** 

BRYAN DESLOGE

District 5

ADDENDUM #1

CLIFF THAELL

At-Large

Dear Vendor:

AKIN AKINYEMI

At-Large

This letter serves as Addendum #1 for the above referenced project.

PARWEZ ALAM

County Administrator

The attached Addendum 1 from Johnson Peterson Architects, Inc. contains answers to all RFIs received, additional information on the bid, as well as the Soils Report as was requested in the pre-bid conference.

HERBERT W.A. THIELE County Attorney

Acknowledgment of this addendum is required as part of your bid submittal. Failure to acknowledge this addendum may result in rejection of your bid.

Should you have any questions, feel free to call me at (850) 606-1600.

Sincerely,

Keith M. Robert Purchasing Director (\_)

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To:

Date: July 22, 2010

John Ward

**Construction Manager** 

Leon County Facilities Management

Project Name: Leon County Library

Woodville Branch

Addendum #1

From:

Johnson Peterson Architects, Inc.

Copied:

John Ward, Construction Manager Leon County Facilities Management

Douglas Barkley & Barry Pujol, Barkley Engineering

Craig Allen, Pinnacle Engineering, Inc. Russell Large, Inovia Consulting Group

#### General:

1. In order to obtain a bond, we need to know a budget. Please provide a budget.

We would like for you to provide us with a budget. Your bond amount must be adequate to cover your bid amount.

2. Per Specification 01500, please clarify that the Owner will furnish and pay for the necessary electricity and water for the project.

The Owner (Leon County) will furnish and pay for power and water.

#### Site Work:

A1.2 identifies a "new fence to match existing". What is the existing fence? Please provide a specification or clarification of what is acceptable.

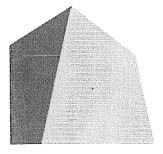
See updated D1.1 showing existing fence and gate. Please see attached specification: 02820 Polyolefin Coated Chain Link Fence.

4. Fence – is there a gate as identified on A1.2? A1.1, A1.3, A2.1, LS1 do not indicate a gate. If the gate is relevant to the project, what are the gate dimensions? Is lockable hardware (lock provided by others) required? Please provide a spec or clarification of what is acceptable.

Existing gate will be removed and lockable hardware will be removed, and reused in new fence. See updated D1.1 showing existing fence and gate.

5. Is the bike rack remove and replace or remove and reuse? If replace, please clarify with a specification.

Bike rack shall be removed and replaced as shown on sheet C5.



6. Can we relocate existing trees from the demo parking lot area to the locations tree need to be replaced? We understand the species are different.

Existing trees that are to be removed may be used as replacements for dead trees or for new required trees as long as the contractor can guarantee the survival of the specimen.

7. When we remove and relocate the existing Fire department connection. Is it mandatory that we pressure test, bacterial sample the line, and chlorinate?

It will be required for the contractor to pressure test, bacterial sample, and chlorinate the water line when removing and relocating the existing fire department connection.

8. Per page C7 it calls for the removal and replacement of existing dead Japanese Boxwoods. How many are there and what size do the replacements need to be?

There appear to be four dead Japanese Boxwoods on site. The contractor should provide a price per each replacement in the event that there are additional plants that need to be replaced. The replacement plants need to be 20" min. height, 12" min. spread.

9. What exactly is the expectation regarding irrigation. What is to be irrigated?

The Leon County Code states: "All required landscaped areas and buffer strips shall be provided with an irrigation system or a readily available water supply located within 100'."

10. Is there an existing system now? If so, is it capable of being expanded? If no system is available, will a tap and meter be required?

There is currently an irrigation system on-site. The contractor shall connect to this system.

11. If we are to only irrigate the 6 new Shumard Oaks, how will the removed & replaced material be irrigated? Are these items on an existing irrigation system?

All new landscape areas are to be irrigated. All existing landscaped areas should be serviced by the existing irrigation system.

12. What caused the box woods and dogwoods to die: lack of irrigation, disease, cars? I'm concerned about replacing plant material with like plant material that did not survive originally.

It is not known exactly what caused the existing dogwood and boxwoods to die. It is possible that a combination of the sandy soil on-site and a lack of enough irrigation contributed. Provide materials as requested on plans.

13. What type of sod is required?

Centipede sod will be required.

14. Are the instructions and notes on C6 the only set of specifications we'll be receiving for landscape and irrigation?

Yes, there will be no further specifications issued for landscape and irrigation.

#### EIFS:

15. EIFS— exterior EIFS on metal stud system is identified on A2.1 and A8.1. Is there EIFS provided on this project? If so, please provide a spec or clarification of what is acceptable. Is the EIFS integral color? If not please clarify finish with a specification.

See attached specification 04240 Exterior Insulation & Finish System. EIFS is integral color.

#### Metals, Woods & Plastics:

16. On sheet 3/A1.1 it calls for wall types 1 and 2 to have metal studs but gives a 2x4 wood alt. which way is the preferred as if I bid metal studs and the next guy bids wood we will not be bidding apples to apples.

Wood studs shall be base bid.

17. Please clarify rooms with contractor supplied finish carpentry/millwork?

No carpentry/millwork is to be supplied by contractor. All carpentry/millwork is "Not In Contract" and may be provided by the Owner at a later date.

#### Thermal & Moisture Protection - Roofing:

18. The flashing detail for the weeps at block wall in the way it is being shown you would have to have the stud walls in place prior to your exterior block wall, could you please clarify the process intended.

Several bidders have indicated it can probably be done this way and if this remains an issue we will discuss it prior to construction.

19. 7410-2:01; Sheet Metal Roofing - Is the profile and color specified still available? Do we assume it matches the existing manufacturer? Do we agree the color will not match as hues have "changed"? Should we base our bid on the existing roof material or what is specified? Specification 07410, 2.01E call for an Aluminum panel by Petersen in a Snap loc panel and aluminum gutter and states 'No Substitutions permitted'. The existing roof on the Woodville Community Center is Image II by Metal Sales in 26 gauge color is Linen White #81 and the profile is a 16" coverage panel with minor ribs. Gutters from same material. However, the panel specified is not the panel that was used on the original building. Will the Image II panel by Metal Sales, which was used on the original building, be allowed?

Sheet Metal Roofing shall be bid as Image II by Metal Sales in 26 gauge color is Linen White #81 and the profile is a 16" coverage panel with minor ribs (or approved equal). Gutters shall be from the same material. It is acknowledged that the color will not match as hues have changed.

20. Which soffit is correct? A1.2 unvented vinyl, A4.1 & A8.1 Vented vinyl soffit, or S-3 Vented Hardisoffit panel. Is there Vented Vinyl soffit on this project? If so, please provide a spec or

clarification of what is acceptable. We need to know whom the existing manufacturer so "trim edge by manufacturer" will be similar.

Yes, vented soffit is used on this project. Provide vented soffit to match existing, the existing is Metal Sales 26 gauge, 12" coverage with striation; color is Linen White #81.

21. Is the roof sheathing 5/8" CDX (as identified on the arch drawings) or 7/16" OSB (note 14, S-4)?

Roof sheathing shall be 5/8" CDX.

22. Canopy detail 2/A1.2 identifies 2"x8" pt and 2"x6" pt, canopy detail B/S-3 identifies HSS 4"x6"x1/4". Which is correct?

2/A1.2 is correct. As noted on D1.1 the existing canopy should be reused as much as possible, at this location. The 2"x8" pt and 2"x6" pt are reflective of the existing canopy. Should metal roof of canopy be damaged during removal, provide new metal to match existing.

23. Which rafter is correct; A1.2 2"x6" in the canopy detail or 2"x12" as identified on the reflected ceiling plan?

2"x6" is correct. As noted on D1.1 the existing canopy should be reused as much as possible, at this location. The 2"x6" pt is reflective of the existing canopy.

24. What type of elastomeric coating is applied to the CMU?

Apply a silane based clear water repellant coating.

#### **Doors & Windows:**

25. Door Schedule on A8.1 shows hardware set to be #6. There is no #6 in specs.

Hardware set #6 omitted, Door 001 & 007 shall have hardware set #5. Contractor to provide power to door and fire alarm input. See revised attached sheets A1.1, A8.1 & SKE-1, 3-5.

26. Door Frame A2 is not listed on the Door Schedule, C1 is. Does C1=A2?

Yes, this is a typo, C1=A2.

27. A8.1 also shows doors as existing and on plan view A1.1 shows change door leafs only.

The entire existing storefront and doors shall be removed and reused in project as Door 001 with new hardware set #5. New storefront CW3 and doors to be installed at location for Door 007 with hardware set #5.

#### Finishes:

28. A1.3 shows on the drawing Room 118 getting VCT that is also shown on the demo plan though the schedule shows Room 119 getting VCT and Room 118 remaining the same. Could you please clarify?

Room 118- Meeting Room C is to receive new VCT. Room 119- Comm is to remain the same. See revised A1.3 delineating change and 6" rubber base in Room 118.

29. What happens to the underside of the canopy on A1.2? Is it painted? Is the vented vinyl soffit applied? Is it left alone? Painting the rafters is the only item called out. Please provide a spec or clarification of what is expected.

The underside of canopy is painted. The existing canopy should be reused in this location as much as possible. Repaint as necessary.

30. 9900 Paints and Coatings; fails to identify how to coat and with what to coat the EIFS with. Please provide a spec or clarification of what is expected.

EIFS is NOT to be painted. See attached specification 04240 Exterior Insulation & Finish System.

31. 9900 Paints and Coatings; fails to identify how to coat and with what to coat the masonry with. Please provide a spec or clarification of what is expected. What is the CMU finish; painted, stained, or integral color?

CMU to have integral color to match existing.

32. Is the 2"x2" tile on the floor in the rest room on the slab or a mud bed? The structural's didn't show any recess in the slab. What walls are to receive tile only? Only one wall shown in the elevations? Finishes to be selected at a later date. What does that mean? Are we bidding tile now or later?

Tile floor shall be thin set, no recess in the slab. All walls shown in Room 123 – Toilet, shall receive 2"X2" ceramic tile up to 6'-0" high with a bull nose at the top and tile cove base, see revised 3/A3.1. Existing floor tile is Egyptstones ceramic mosaics by American Olean with MT-6A cove base. Existing wall tile is unglazed ceramic mosaics premium line by American Olean.

33. Please provide a specification for the VCT.

See attached specification 09650 Resilient Flooring.

- 34. Reference 09680, Part 3 Execution, 3.5 Tuft or Fusion-Bonded Carpet Data,
  - a. A1- Dye method: Yarn Dyed.
  - b. A4- Polymer: 100 percent type 6,6 **anthon legacy** cationic with permanent stain resistance.
  - c. A8- Surface Pile Weight: **26**oz./sq.yd.

#### **Specialties:**

35. 10522 – Fire Extinguishers; not indicated. If the spec is relevant to the project, where is the FE's located and what type is required? Are the FE's with or without cabinets and what type of cabinet is required?

No new fire extinguishers required, specification is not relevant to this project.

36. 10800-3, 2.07 — Utility Room Accessories; mop and broom holder are not indicated. If the spec is relevant to the project, where is the mop and broom holder located? No utility room is shown on the drawings, please identify utility room.

No utility room accessories required. Specification is not relevant to this project.

37. Signage will be required at the Toilet. Please provide a specification for Signage. Will any other Signage be required?

Provide a \$500 allowance for all signs required.

#### Structural:

38. On page S-2 there are Alt details A and E, are these actually Alternates or are they options? Could you please clarify where these details are used?

The details on S-2 in question are options for the contractor. A monolithic pour is preferred but a stemwall may be used based on the site slope if needed.

39. Are pre-engineered trusses wood or metal?

All trusses are wood.

40. B/S-2 Foundation Detail @ existing – slab on grade is identified as 6", is that correct?

That is a typo; it should read 4" slab to match the rest of the details.

41. Please provide a specification for the Wood Trusses.

Structural specifications are on the drawing, sheet S-4.

#### **Electrical:**

42. The existing light poles to be removed and relocated are direct burial poles. What fixtures are to use the pole bases identified on E0.2?

Re-install the 2 light poles with "direct burial" as shown on attached SKE-2..

#### Plumbing:

43. Plumbing - No plumbing specifications are provided. Do we refer to the drawings for the specifications?

Plumbing specifications are on the drawings, sheet P0.1.

#### **Fire Protection:**

44. Fire Protection - No fire protection specifications are provided. Do we refer to the drawings for the specifications?

# Fire Protection specifications are on the drawings, sheet F0.1.

45. Sheet F1.0 shows several reference numbers (1-18). Please provide the notes as to what these reference numbers are indicating.

These are the fire calculation nodes. See attached hydronic calculations.

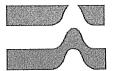
46. Is it the intent of the fire system in the attic to be a wet system?

Yes it is a wet system.

47. Can you provide make and model of Extended Cover sprinkler in attic?

No, not available.

# REPORT OF SUBSURFACE SOIL EXPLORATION AND FOUNDATION EVALUATION FOR A PROPOSED LIBRARY ADDITION, WOODVILLE, LEON COUNTY, FLORIDA



File No. 09-1206 July 6, 2009

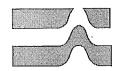
# Ardaman & Associates, Inc.

#### **OFFICES**

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> MEMBERS: A.S.F.E.

American Concrete Institute
American Society for Testing and Materials
Florida Institute of Consulting Engineers



# Ardaman & Associates, Inc.

Geotechnical, Environmental and Materials Consultants

July 6, 2009 File No. 09-1206

Johnson Peterson Architects, Inc. 930 Thomasville Road Suite 1 Tallahassee, Florida 32303

Attention:

Mr. Ivan Johnson

Subject:

Report - Subsurface Soil Exploration and Foundation Evaluation for a Proposed

Library Addition, Woodville, Leon County, Florida.

#### Gentlemen:

As authorized, Ardaman & Associates, Inc. has completed a subsurface soil exploration for the subject project. The purposes of this exploration were to evaluate subsurface conditions encountered in our test borings performed at the site, and to provide you with recommendations for subgrade soils preparation and foundation and pavement section design.

This report documents our findings and recommendations. It has been prepared for the exclusive use of Johnson Peterson Architects for specific application to the subject project.

We are pleased to be of assistance to you on this phase of your project. When we may be of further service to you or should you have any questions, please do not hesitate to contact us.

Sincerely,

ARDAMAN & ASSOCIATES, INC.

Florida Certificate of Authorization Number: 5950

Michael S. Wilson, P.E.

Tallahassee Branch Manager Fla. Eng. License No. 46088

MSW/ms

JUL 0 6 2009

#### 1.0 PROJECT DESCRIPTION

Based upon the information provided by Johnson Peterson Architects, the proposed building will be a single-story, 2,300 square foot building addition. Structural loading conditions are not available at this time, but we anticipate that maximum strip footing loads should not exceed about 3 k/lf, and column loads about 75 kips. Finished building grades are assumed to require about 2 feet of fill and the pavement will closely match existing grade.

#### 2.0 SCOPE OF SERVICES

Geotechnical services performed were based upon our authorized proposal for the project, and generally accepted geotechnical practices, as follows:

- 1. Mobilizing a drill crew to the site, performing two (2) Dynamic Cone Penetration Test borings in accordance with ASTM STP 399, to depths of 15 feet each in the proposed building area, and one (1) auger boring to a depth of 10 feet in the proposed parking and drive area.
- During performance of the test borings, our drillers classified the recovered split-spoon and augur soil samples, and transported portions to our office for further classification by our engineers. The drillers also estimated the depth to groundwater in the borings (not encountered).
- 3. Recovered soil samples were visually/manually classified by our engineers. Our engineers directed drafting of soil profiles along with a test boring location plan.
- 4. Developing recommendations regarding site soil preparation, foundation and pavement section design, and recommended fill soil types.
- 5. Findings and recommendations are documented in this report.

#### 3.0 FIELD SUBSURFACE EXPLORATION

# 3.1 Test Boring Locations and Methods

The locations of the borings are shown on the attached Figure 1, overlain on a Site Plan provided by Johnson Peterson Architects. The test borings were located by our staff using a wheel tape, measuring from existing streets. Distances were estimated from the site plan provided, and the locations indicated on Figure 1 should be considered accurate only as implied by the methods of measurement used.

The borings were advanced with a manual bucket auger. We typically performed Dynamic Cone Penetration Test soundings at 18-inch intervals to 10.5 feet deep and at 5-foot intervals thereafter. The borings were backfilled with tamped native soils upon completion.

#### 4.0 LABORATORY TESTING

Samples transferred to our laboratory were classified by visual/manual methods in general accordance with ASTM D 2488.



#### 5.0 SUBSURFACE CONDITIONS

#### 5.1 General

Subsurface conditions encountered during our field exploration are shown on the *Soil Boring Profiles* on the attached Figure 1. The soil descriptions shown on the *Soil Legend* are based upon visual/manual soil classification procedures in accordance with ASTM D 2488. AASHTO Soil Classifications are also shown (AASHTO M-145).

The stratification lines on the *Soil Boring Profiles* represent the approximate boundaries between the soil types and the actual transitions may be more gradual than implied. This report does not reflect any variations which may occur between the borings. The nature and extent of variations between the borings may not become evident until during the course of construction.

#### 5.2 Soil Conditions - Generalized

In general, the subsurface soils encountered in our test holes consisted of, in descending order: an initial layer of fill was encountered over an apparently natural soil approximately 2.5 feet below the existing ground surface at the location of boring TH-2 where fill was placed to raise grades. The fill was slightly silty sand with a surficial root mat and included wood chips. The natural soil profile included an initial layer of slightly silty fine sand with a surficial root mat. This slightly silty fine sand extended from 8 inches to 3 feet below the existing ground surface to 4.5 to 8 feet deep. The underlying soils became clayey to about 10 to 11 feet deep where upon the clay content decreased.

Based upon the Dynamic Cone soundings, the subsoils were found to be in a loose condition.

Please refer to the Soil Boring Profiles on the attached Figure 1 for more details regarding subsurface conditions.

#### 5.3 Groundwater Conditions

Groundwater was encountered at the time of our exploration at 12.5 feet below the natural ground surface. However, due to the clayey nature of the Strata 4 and 5 soils found at the site, <u>perched groundwater may be encountered at shallow depths</u> at the time of construction, especially following periods of heavy rain. While such a perched groundwater condition is considered temporary, it could have a negative impact on earthwork operations if present at the time of construction.

Fluctuations in groundwater levels should be anticipated throughout the year due to seasonal variations of rainfall, changes in site grading, irrigation practices, and other factors.

#### 6.0 ENGINEERING EVALUATION AND RECOMMENDATIONS

#### 6.1 General

Subsurface conditions encountered are suitable for use of a shallow foundation system, provided that the foundation soils are prepared as recommended in this report. The existing fill may contain other unsuitable materials. Evaluate the character of the existing fill to justify leaving in place or remove and replace it with controlled fill.



After topsoil stripping and excavation to proposed grade in cut areas, proof-rolling compaction of the existing soils is recommended to provide a more uniform bearing surface for foundations, fills, and the slab-on-grade, and to reveal areas with objectionable soil conditions, if any, which have not necessarily been encountered by our borings.

# 6.2 Site Preparation

The following are our recommendations for site soil preparation and foundation design which are presented as a guide for the design engineer and/or architect, and should be incorporated into the project specifications:

1. The building area "footprint", plus a minimum margin of five feet laterally, shall be stripped and grubbed of surface vegetation, debris, and deleterious materials, as encountered. During the clearing and grubbing operation, roots with a diameter greater than one-inch and small roots in high density or soils containing deleterious materials shall be completely removed, and disposed in areas designated by the owner. Next, excavate cut areas to proposed slab subgrade elevation.

Cut solls may be stockpiled for reuse as "suitable fills", but there are cautions in using these materials, as outlined in the second paragraph of Item 5, below.

2. The <u>cleared surfaces</u> in construction areas shall be proof-rolled using the appropriate compaction equipment for site and soil conditions. Adjust the moisture content of the soil, as necessary, to aid compaction. Sufficient passes should be made to develop a minimum dry density of 95% of the modified Proctor maximum dry density (ASTM D 1557) to a depth of 12 inches below the compacted surface.

It is important to contact our office at least a few days prior to proof-rolling, to obtain bulk samples and perform laboratory Proctor tests, so that the Maximum Proctor Dry Density values will be available at the time of density testing.

- 3. If any areas "yield" during proof rolling, they must be explored to evaluate the condition of the soils. Should yielding result from excessive soil moisture, two corrective alternatives may be considered.
  - A- Dry the soils to a moisture content 2 to 3 percent below the optimum moisture content from the Modified Proctor test (ASTM D 1557). Or:
  - B- Replace the wet material with select fill soils conforming with Item 5, below.

Remove any materials, if determined to be deleterious in areas that "yield" during the proof-rolling operation, and replace with select fill.

4. After satisfactory proof-rolling of the cleared surfaces in accordance with the above, filling with "select" or "suitable" materials, as defined below, may proceed in level lifts not exceeding 12 inches in uncompacted thickness. Each lift should be compacted by repeated passes with appropriate compaction equipment, to achieve at least 95% of the Modified Proctor maximum dry density (ASTM D 1557). The filling and compaction operations should continue until the desired elevations are achieved.



- 5. "Select fill" materials required to elevate the building area shall <u>preferably</u> consist of uniformly graded clean sands to silty sands, free of organics and other deleterious materials, with less than 15 percent passing the No. 200 sieve (silt and clay). These soil types are less sensitive to moisture problems than more silty or clayey soils, so the use of select fill tends to reduce earthwork delays caused by seasonal rains.
  - In the interest of economy, "suitable fill" soils may also be allowed to elevate the building area to proposed grades. Suitable fills are defined as silty to clayey sand (SM, SC; A-2-4 to A-6) materials, but with no more than 35% passing the U.S. No. 200 sieve, Liquid Limit less than 40, and plasticity index less than 10. Strata 1 and 2, but free of roots and organics more than 5%, and the other strata, except Stratum 5, site soils appear to be suitable fills. However, we caution you that fill materials with more than 15% fines are likely to retain excess moisture, and be more difficult to dry and compact. Therefore, construction delays are likely during rainy periods when such fill soils are used than when select fills are used.
- 6. Excavate the continuous wall footing lines and/or column footings to the proposed bottom of footing elevations, and make every effort to minimize disturbance to the foundation bearing soils. Next, test the density of the foundation bearing soils. The recommended density requirement is at least 95% of the Modified Proctor maximum dry density to a depth of 12 inches below the foundation bearing elevation. If deficient, compact the bottom of the excavations to achieve the above requirement. Overexcavate and recompact, if necessary, to fulfill the above compaction criteria. The moisture content of the soils must be controlled to aid compaction.
- 7. Ardaman & Associates, Inc., should be employed by the Owner to observe proof-rolling, and test all prepared and compacted areas to document that unsuitable soils (if any) are removed, and that the natural foundation and fill soils are prepared and compacted in accordance with the above recommendations.

#### 6.3 Foundation Design

In our opinion, foundation soils prepared in accordance with the above recommendations (natural soils or fills) are suitable for supporting the proposed structure on a <u>conventionally designed shallow foundation system</u>. The foundations may be designed for a soil contact pressure of <u>2,500</u> pounds per square foot (psf) or less. We suggest considering designing the foundations to bear below the existing fill.

Column footings (if any) should be a minimum of 24 inches wide and wall footings should be a minimum of 18 inches wide. Minimum soil coverage of 18 inches should be maintained from the bottom of the exterior foundations to the adjacent outside finished grades.

Based on the boring information and loading conditions noted above, the recommended soil contact pressure will yield a minimum factor of safety of two against bearing capacity failure. Total settlement is estimated to be one inch or less, and load related differential settlement between adjacent footings, and strip footing tilt is estimated to be 0.5 inch or less in 25 feet.



#### 6.4 Slab-On-Grade

A modulus of subgrade reaction of 125 psi/inch may be used in the floor slab structural design. It is preferred but not mandatory that the slab-on-grade be founded on a "capillary break. As such, the subgrade elevation compacted and prepared based on the above shall be established at the capillary break thickness below the bottom of the finished concrete elevation. Provide a durable "vapor barrier" below the floor slab system.

# 7.0 PAVEMENT SECTION DESIGN

#### 7.1 General

In order to perform a detailed Pavement Section Design analysis to determine the thicknesses of the different layers comprising the pavement section, necessary data needed to perform such analysis include an estimate of the accumulated 18 kip Single Axial Load over the life of the project (ESAL<sub>D</sub>). These data were not provided at the time this report was prepared. Therefore, in order to provide a preliminary pavement section design, the following data was assumed to determine the thicknesses of the pavement section components.

Reliability (R %): 80%
Resilient Modulus (Based on assumed LBR of 20): 7,500 psi
ESAL<sub>D</sub> for Standard Duty: 100,000 (assumed light duty traffic)

#### 7.2 Flexible Pavement Section

Based on the above assumed data, a preliminary pavement design analysis was performed. Based on experience with similar facilities, Ardaman & Associates, Inc. provide herein minimum thicknesses of the different pavement section components which yield a Structural Number (SN) of 2.7 for standard light duty traffic.

- In generally accepted pavement section design standards, the top 24 inches of soil beneath the base course (which comprise the Subgrade and Stabilized Subgrade) must be AASHTO M145 types A-1, A-3, or A-2-4, per FDOT Index 500.
- Compact the top 24 inches of soil beneath the Base Course (which comprise the Subgrade and Stabilized Subgrade) to at least 95% of the Modified Proctor maximum dry density (AASHTO T-180).
- The top 12 inches beneath the base course (the Stabilized Subgrade) must exhibit a minimum laboratory LBR value of 40. LBR testing of the proposed Stabilized Subgrade soils must be performed well in advance of pavement section construction.

If necessary, we recommend stabilization in accordance with FDOT *Standard Specifications for Road and Bridge Construction*, latest edition, Section 160, Type B. Stabilization of the in-place solls should be anticipated to achieve an LBR of 40.



- We recommend installing limerock base meeting the quality requirements of FDOT Section 911, placed in accordance with Section 200 of the FDOT Standard Specifications. The base must be compacted to at least 98% of the Modified Proctor maximum dry density (AASHTO T-180), and must exhibit a minimum LBR of 100.
- After placement of a prime coat or tack coat (FDOT Section 300), install the asphaltic concrete layer. Specific requirements for the Type SP asphaltic concrete are outlined in Section 334 in the FDOT Standard Specifications.

Specific details of the pavement section components and their thicknesses are tabulated below.

#### SUMMARY DESIGN OF PAVEMENT

Pavement Slope: 2% to 3%

Subgrade Density: 95% (ASTM D 1557/AASHTO T-180) (Select fill)

# ASPHALT CONCRETE PAVEMENT

COMPONENT	STANDARD DUTY	MATERIAL	% OF COMPACTION	MINIMUM REQUIREMENTS
Stabilized (Type B) Subgrade	12"	Controlled Fill	95% (D 1557)	LBR = 40
Base Material	6"	Limerock	98% (D 1557)	LBR = 100
Asphalt Structural Course	2"	SP	Per Spec. (Sec. 334)	(1 lift)

In areas which will be traversed by heavy truck traffic, the pavement section is typically thickened by adding 2 inches of base and 1 to 2 inches of asphalt concrete.

We recommend that civil design features be planned such that stormwater cannot reach an elevation higher than 24 inches below bottom of the base elevation. Please refer to Section 5.3 of this report for discussion of groundwater conditions.

#### 8.0 CLOSURE

The recommendations submitted in this report are based upon the data obtained from the soil borings presented on the attached Figure 1 and the structure loading conditions previously outlined. This report does not reflect any variations which may occur between the borings. The nature and extent of variations between the borings may not become evident until during the course of construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report after performing on-site observations during the construction period and noting characteristics of any variations.



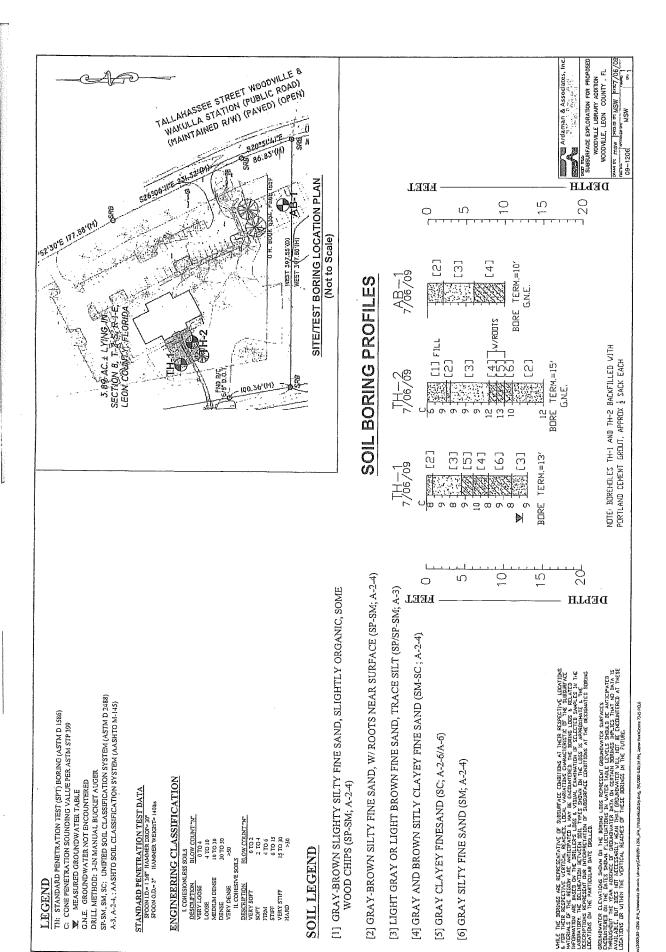
In the event any changes occur in the design, nature or location of the facility, we should review the applicability of the conclusions and recommendations in this report. We also recommend a general review of final design drawings and specifications by our office to determine if earthwork and foundation recommendations have been properly interpreted and implemented in the design specifications.

This evaluation does not deal with the possibility of eventual sinkhole development at the site. This exploration and analysis covers only the near surface soil deposits. It is not intended to include deep soil or rock strata where cavities and caverns may exist. (Additional deep structural borings and/or geophysical explorations would have to be conducted in order to evaluate the structural condition and stability of deep rock formations).

This report has been prepared in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made.

End of Report.





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#### SECTION 02820 - POLYOLEFIN COATED CHAIN LINK FENCING

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

A. Permafused II<sup>TM</sup> Polyolefin coated chain link fencing and accessories for commercial use.

#### 1.02 GATES AND RELATED SECTIONS

A. Section 03300

Cast-In-Place Concrete

B. Section 04200

**Unit Masonry** 

#### 1.03 SUBMITTALS

A. Changes in specifications may not be made after the bid date.

- B. Shop drawings: Layout of fences and gates with dimensions, details, and finishes of components, accessories, and post foundations.
- C. Product data: Manufacturer's catalog cuts indicating material compliance and specified options.
- D. Samples: Color selection for polyolefin finishes.

#### 1.04 SPECIAL WARRANTY

A. Provide Manufacturer's standard limited warranty that its Polyolefin Coated Chain Link Fence is free from color coating flaking and peeling and other defects in material or workmanship for a period of 15 years from the date of purchase.

#### PART 2 PRODUCTS

#### 2.01 MANUFACTURER

- A. Products from qualified manufacturers having a minimum of five years experience manufacturing thermally fused chain link fencing will be acceptable by the architect as equal, if approved in writing, prior to bidding, and if they meet the following specifications for design, size gauge of metal parts and fabrication.
- B. Obtain chain link fences and gates, including accessories, fittings, and fastenings, from a single source.

  Approved Manufacturer: Master Halco, Inc.

#### 2.02 CHAIN LINK FENCE FABRIC

- A. Polyolefin elastomer coating, 6 mil (0.15mm) to 10 mil (0.25mm) thickness, thermally fused to zinc-coated steel core wire: Per ASTM F668 Class 2b. Minimum Core wire tensile strength of 75,000 psi (517 MPa).
- B. Size: Helically wound and woven to height of 6 feet with 2" (50 mm) diamond mesh, 11 gauge, with a core wire diameter of 0.120" (3.05 mm) and a minimum breaking strength of 850 lbf (3780 N). Color ASTM F 934. Midnight Black.
- C. Selvage of fabric knuckled at top and twisted at bottom.

#### 2.03 STEEL FENCE FRAMING

- A. Steel pipe Type I: ASTM F 1083, standard weight schedule 40; minimum yield strength of 30,000 psi (205 MPa); sizes as indicated. Hot-dipped galvanized with minimum average 1.8 oz/ft² (550 g/m²) of coated surface area.
- B. End and Corner Post
  Line (intermediate) Post

2.375" od (60.3 mm) 3.65 lbs/ft (5.4 kg/m) 1.900" od (48.3 mm) 2.72 lbs/ft (3.65 kg/m)

#### 2.04 POLYOLEFIN COATED ACCESSORIES

- A. Chain link fence accessories: [ASTM F 626] Provide items required to complete fence system. Galvanize each ferrous metal item and finish to match framing. Fittings should match Master Halco specifications.
- B. Post caps: Formed steel, cast malleable iron, or weather tight closure cap for tubular posts. Provide one cap for each post. Cap to have provision for barbed wire when necessary. "C" shaped line post without top rail or



barbed wire supporting arms do not require post caps. (Where top rail is used, provide tops to permit passage of top rail.)

C. Top rail and rail ends: Pressed steel per ASTM F626, for connection of rail and brace to terminal posts.

D. Top rail sleeves: 7" (178 mm) expansion sleeve with a minimum .137" wire diameter and 1.80" length spring, allowing for expansion and contraction of top rail.

E. Wire ties: 9 gauge [0.148" (3.76 mm)] galvanized steel wire for attachment of fabric to line posts. Double wrap 13 gauge [0.092" (2.324 mm)] for rails and braces. Hog ring ties of 12-1/2 gauge [0.0985" (2.502 mm)] for attachment of fabric to tension wire.

Brace and tension (stretcher bar) bands: Pressed steel, minimum 300 degree profile curvature for secure fence post attachment. At square post provide tension bar clips.

Tension (stretcher) bars: One piece lengths equal to 2 inches (50 mm) less than full height of fabric with a minimum cross-section of 3/16" x 3/4" (4.76 mm x 19 mm). Provide tension (stretcher) bars where chain link fabric meets terminal posts.

H. Tension wire: Thermally fused polyolefin applied to zinc coated steel wire: Per ASTM F 1664 Class 2 b, 6 gauge, [0.192" (4.88 mm)] diameter core wire with tensile strength of 75,000 psi (517 MPa).

I. Truss rods & tightener: Steel rods with minimum diameter of 5/16" (7.9 mm). Capable of withstanding a tension of minimum 2,000 lbs.

J. Nuts and bolts are galvanized but not polyolefin coated. Cans of touch up paint are available to color coat nuts and bolts if desired.

#### 2.05 SETTING MATERIALS

A. Drive Anchors: Galvanized angles, ASTM A 36 steel 1" x 1" x 30" (25 mm x 25 mm x 762 mm) galvanized shoe clamps to secure angles to posts.

#### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Verify areas to receive fencing are completed to final grades and elevations.
- B. Ensure property lines and legal boundaries of work are clearly established.

## 3.02 CHAIN LINK FENCE FRAMING INSTALLATION

- A. Install chain link fence in accordance with ASTM F 567 and manufacturer's instructions.
- B. Locate terminal post at each fence termination and change in horizontal or vertical direction of 30° or more.
- C. Space line posts uniformly at 8' or 10' (2438 mm) on center.
- D. Drive Anchor [line] posts: With protective cap, drive post 36" (914 mm) into ground. Slightly below ground level install drive anchor shoe fitting. Install 2 diagonal drive anchors and tighten in the shoe.
- E. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.
- F. Bracing: Install horizontal pipe brace at mid-height for fences 6' (1829 mm) and over, on each side of terminal posts. Firmly attach with fittings. Install diagonal truss rods at these points. Adjust truss rod, ensuring posts remain plumb.
- G. Top rail: Install lengths, 21' (6400 mm). Connect joints with sleeves for rigid connections for expansion/contraction.
- H. Center Rails (for fabric height 12' (3658 mm) and over). Install mid rails between posts with fittings and accessories.
- I. Bottom Rails: Install bottom rails between posts with fittings and accessories.

#### 3.03 ACCESSORIES

- A. Tie wires: Bend ends of wire to minimize hazard to persons and clothing.
- B. Fasteners: Install nuts on side of fence opposite fabric side for added security.

#### 3.05 CLEANING

A. Clean up debris and unused material, and remove from the site.

#### **END OF SECTION**

0819.001 Chain Link Fence 02820 - 2



# SECTION 07240 - EXTERIOR INSULATION AND FINISH SYSTEM CLASS PB

#### PART I GENERAL

#### 1.01 SUMMARY

#### A. Related Sections

- 1. Unit Masonry Section 04200
- 2. Concrete Sections 03300
- 3. Wood Framing Section 06100
- 5. Sealant Section 07900
- 6. Flashing Section 07625

#### 1.02 REFERENCES

#### A. Section Includes

- 1. ASTM B 117 (Federal Test Standard 141A Method 6061) Standard Practice for Operating Salt Spray (Fog) Apparatus
- 2. ASTM C 150 Standard Specification for Portland Cement
- 3. ASTM C 297 Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions
- 4. ASTM C 1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
- 5. ASTM C 1396 (formerly C 79) Standard Specification for Gypsum Board
- 6. ASTM D 968 (Federal Test Standard 141A Method 6191) Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
- 7. ASTM D 2247 (Federal Test Standard 141A Method 6201) Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
- 8. ASTM D 2898 Standard Test Method for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing
- 9. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
- 10. ASTM D 4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
- 11. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- 12. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials
- 13. ASTM E 119 Standard Method for Fire Tests of Building Construction and Materials
- 14. ASTM E 283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
- 15. ASTM E 330 Test Method for Structural Performance of Exterior Windows, Doors and Curtain Walls by Uniform Static Air Pressure Difference
- 16. ASTM E 331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference
- 17. ASTM E 2098 Test Method for Determining the Tensile Breaking Strength of Glass Fiber Reinforcing Mesh for use in Class PB Exterior Insulation and Finish Systems (EIFS), after Exposure to Sodium Hydroxide Solution
- 18. ASTM E 2134 Test Method for Evaluating the Tensile-Adhesion Performance of Exterior Insulation and Finish Systems (EIFS)
- 19. ASTM E 2178 Standard Test Method for Air Permeance of Building Materials
- 20. ASTM E 2273 Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies
- 21. ASTM E 2357 Standard Test Method for Determing Air Leakage of Air Barrier Assemblies
  0819.001 Exterior Insulation and Finish System 07240 1

- 22. ASTM E 2430 Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for use in Exterior Insulation and Finish Systems (EIFS)
- 23. ASTM E 2485 (formerly EIMA Std. 101.01) Standard Test Method for Freeze-Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water-Resistive Barrier Coatings
- 24. ASTM E 2486 (formerly EIMA Std. 101.86) Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
- 23. ASTM E 2568 Standard Specification for PE Exterior Insulation and Finish Systems
- 24. ASTM E 2570 Standard Test Method for Evaluating Water-Resistive Barrier (WRB) Coatings Used Under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage
- 25. ASTM G 155 (Federal Test Standard 141A Method 6151) Standard Practice for Operating-Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials
- 26. DS131, Dryvit Expanded Polystyrene Insulation Board Specification
- 27. DS151, Custom Brick™ Polymer System Specifications for Use On Vertical Walls
- 28. DS152, Dryvit Cleaning and Recoating
- 29. DS153, Dryvit Expansion Joints and Sealants
- 30. DS159, Dryvit Water Vapor Transmission
- 31. DS456, Rapidry DM™ 35-50 or DS457, Rapidry DM™ 50-75 Data Sheets
- 32. DS494, Dryvit AquaFlash® System
- 33. DS704, Backstop® DMS
- 34. DS705, Reflectit™
- 35. DS706, Mojave E™ Finish
- 36. Mil Std E5272 Environmental Testing
- 37. Mil Std 810B Environmental Test Methods
- 38. NFPA 268 Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source.
- 39. NFPA 285 Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components Using the Intermediate-Scale, Multistory Test Apparatus

#### 1.03 DEFINITIONS

- A. Base Coat: Material used to encapsulate one or more layers of reinforcing mesh fully embedded that is applied to the outside surface of the EPS.
- B. Building Expansion Joint: A joint through the entire building structure designed to accommodate structural movement.
- C. Contractor: The contractor that installs the Outsulation MD System to the substrate.
- D. Dryvit: Dryvit Systems, Inc., the manufacturer of the Outsulation MD System, a Rhode Island corporation.
- E. Expansion Joint: A structural discontinuity in the Outsulation MD System.
- F. Finish: An acrylic-based coating, available in a variety of textures and colors that is applied over the base coat.
- G. Insulation Board: Expanded polystyrene (EPS) insulation board, which is affixed to the substrate.
- H. Panel Erector: The contractor who installs the panelized Outsulation MD System.
- 1. Panel Fabricator: The contractor who fabricates the panelized Outsulation MD System.
- J. Reinforcing Mesh: Glass fiber mesh(es) used to reinforce the base coat and to provide impact resistance.
- K. Sheathing: A substrate in sheet form.
- L. Substrate: The material to which the Outsulation MD System is affixed.
- M. Substrate System: The total wall assembly including the attached substrate to which the Outsulation MD System is affixed.



#### 1.04 SYSTEM DESCRIPTION

- A. General:The Dryvit Outsulation MD System is an Exterior Insulation and Finish System (EIFS), Class PB, with capability for moisture drainage. The system consists of a water-resistive barrier coating (air/water-resistive barrier), an adhesive, grooved expanded polystyrene insulation board, internal vinyl tracks (Dryvit Track<sup>TM</sup>), Dryvit Vent Assembly<sup>TM</sup>, Dryvit Starter Strip<sup>TM</sup>, base coat, reinforcing mesh(es) and finish.
- B. Methods of Installation
  - 1. Field Applied: The Outsulation MD System is applied to the substrate system in place.
- C. Design Requirements:
  - 1. Acceptable substrates for the Outsulation MD System shall be:
    - a. Exterior grade gypsum sheathing meeting ASTM C 1396 (formerly C 79) requirements for water resistant core or Type X core at the time of application of the Outsulation MD System.
    - b. Exterior sheathing having a water-resistant core with fiberglass mat facers meeting ASTM C 1177.
    - c. Exterior fiber reinforced cement or calcium silicate boards.
    - d. APA Exterior or Exposure 1 Rated Plywood, Grade C-D or better, nominal 13 mm (1/2 in) minimum 4-ply.
    - e. Exterior grade fire retardant treated (FRT) plywood.
    - f. APA Exposure 1 Rated Oriented Strand Board (OSB) nominal 11.1 mm (7/16 in) minimum
    - g. Unglazed brick, cement plaster, concrete or masonry.
  - 2. Deflection of the substrate systems shall not exceed 1/240 times the span.
  - 3. The substrate shall be flat within 6.4 mm (1/4 in) in a 1.2 m (4 ft) radius.
  - 4. The slope of inclined surfaces shall not be less than 6:12, and the length shall not exceed 305 mm (12 in).
  - 5. All areas requiring an impact resistance classification higher than "standard", as defined by ASTM E 2486 (formerly EIMA Standard 101.86), shall be as detailed in the drawings and described in the contract documents. Refer to Section 1.04.D.1.d of this specification.
  - 6. Expansion Joints:
    - a. Design and location of expansion joints in the Outsulation MD System is the responsibility of the project designer and shall be noted on the project drawings. As a minimum, expansion joints shall be placed at the following locations:
      - 1) Where expansion joints occur in the substrate system.
      - 2) Where building expansion joints occur.
      - 3) At floor lines in wood frame construction.
      - 4) At floor lines of non-wood framed buildings where significant movement is expected.
      - 5) Where the Outsulation MD System abuts dissimilar materials.
      - 6) Where the substrate type changes.
      - 7) Where prefabricated panels abut one another.
      - 8) In continuous elevations at intervals not exceeding 23 m (75 ft).
      - 9) Where significant structural movement occurs, such as changes in roof line, building shape or structural system.

#### 7. Terminations

- a. Prior to applying the Dryvit Outsulation MD System, wall openings shall be treated with Dryvit AquaFlash System or Flashing Tape. Refer to Dryvit Outsulation MD Installation Details (DS167).
- b. The Outsulation MD System shall be held back from adjoining materials around openings and penetrations such as windows, doors, and mechanical equipment a minimum of 19 mm (3/4 in) for sealant application. See Dryvit's Outsulation MD System Installation Details, DS167.
- c. The system shall be terminated a minimum of 203 mm (8 in) above finished grade.
- d. Sealants



- 1) Shall be manufactured and supplied by others.
- 2) Shall be compatible with the Outsulation MD System materials. Refer to current Dryvit Publication DS153 for listing of sealants tested by sealant manufacturer for compatibility.
- 3) The sealant backer rod shall be closed cell.
- 8. Vapor Retarders: The use and location of vapor retarders within a wall assembly is the responsibility of the project designer and shall comply with local building code requirements. The type and location shall be noted on the project drawings and specifications. Vapor retarders may be inappropriate in certain climates and can result in condensation within the wall assembly. Refer to Dryvit Publication DS159 for additional information.
- 9. Dark Colors: The use of dark colors must be considered in relation to wall surface temperature as a function of local climatic conditions. Use of dark colors in high temperature climates can affect the performance of the system.
- 10. Flashing: Shall be provided at all roof-wall intersections, windows, doors, chimneys, decks, balconies and other areas as necessary to prevent water from entering behind the Outsulation MD System.

#### D. Performance Requirements:

- 1. The Outsulation MD System shall have been tested as follows:
  - a. Air/Water-Resistive Barrier Coating

TEST	TEST METHOD	CRITERIA	RESULTS
Tensile Bond	ASTM C 297/E 2134	Minimum 104 kPa (15 psi)	Substrate:
	ICC ES (AC 212)*		Min. 131 kPa (19 psi)
			(Backstop NT)
			Min. 106 kPa (15.4 psi)
			(Backstop DMS)
			Flashing:
			Min 2970 kPa (431 psi)
			(Backstop NT)
			Min. 967 kPa (140 psi
-			(Backstop DMS)
Freeze-thaw	ASTM E 2485/ICC-ES	No deleterious effects after	Passed – No deleterious effects after
	Proc.	10 cycles	10 cycles
	ICC ES (AC 212)*		
Water Resistance	ASTM D 2247	No deleterious effects after	No deleterious effects after
	ICC ES (AC 212)*	14 days exposure <sup>1</sup>	14 days exposure
Water Vapor	ASTM E 96 Proc. B	Vapor Permeable	7 perms (Backstop NT)2
Transmission	ICC ES (AC 212)*		20 perms (Backstop DMS)
Air Leakage	ASTM E 283	No ICC or ANSI/EIMA	0.011/sec/m² (0.002 cfm/ft²)
_		Criteria	(Backstop NT)
Air Permeance	ASTM E 2178	No ICC or ANSI/EIMA	0.0006 l/s/m² @ 75Pa
		Criteria	(1.2x10 <sup>-4</sup> cfm/ft <sup>2</sup> @1.6 psf)
			(Backstop NT)
Air Barrier	ASTM E 2357	No ICC or ANSI/EIMA	0.05 l/sec m² @300 Pa
Assembly		Criteria	(<0.001 cfm/ft <sup>2</sup> @ 6.24 psf)
,			(Backstop NT)
Structural	ASTM E 1233 Proc. A	Minimum 10 positive	Passed



Performance	ICC ES (AC 212)*	cycles at 1/240 deflection; No cracking in field, at joints or interface with flashing	
Racking	ASTM E 72 ICC ES (AC 212)*	No cracking in field, at joints or interface with flashing at net deflection of 3.2 mm (1/8 inch)	Passed
Restrained Environmental	ICC-ES Procedure ICC ES (AC 212)*	5 cycles; No cracking in field, at joints or interface with flashing	Passed
Water Penetration	ASTM E 331 ICC ES (AC 212)*	No water penetration beyond the inner-most plane of the wall after 15 minutes at 137 Pa (2.86 psf)	Passed
Weathering UV Exposure	ICC ES Proc. ICC ES (AC 212)*	210 hours of exposure	Passed
Accelerated Aging	ICC ES Proc. ICC ES (AC 212)*	25 cycles of wetting and drying	Passed
Hydrostatic Pressure Test	AATCC 127 ICC ES (AC 212)*	ICC: 549 mm (21.6 in) water column for 5 hours	Passed
Surface Burning Characteristics	ASTM E 84	Flame Spread < 25 Smoke Developed < 450	Passed

<sup>\* (</sup>AC212 - Acceptance Criteria for Water-Resistive Coatings Used as Water-Resistive Barriers over Exterior Sheathing, also referred to as

**ASTM E 2570** 

#### b. Durability

TEST	TEST METHOD	CRITERIA	RESULTS
Abrasion Resistance	ASTM D 968	No deleterious effects after 500 liters (528 quarts)	No deleterious effects after 1000 liters (1056 quarts)
Accelerated Weathering	ASTM G 155 Cycle 1	No deleterious effects after 2000 hours	No deleterious effects after 5000 hours
***************************************	ASTM G 154 Cycle 1 (QUV)		No deleterious effects after 5000 hours

<sup>1.</sup> No cracking, checking, rusting, crazing, erosion, blistering, peeling, or delamination when viewed under 5x magnification

<sup>2.</sup> Defined as a Class III vapor retarder per the 2009 IBC and IRC



Freeze-Thaw	ASTM E 2485 (formerly	No deleterious effects	Passed – No deleterious
	EIMA 101.01)	after 60 cycles	effects after 90 cycles
	ASTM C 67 modified	No deleterious effects	Passed - No deleterious
		after 60 cycles	effects after 60 cycles
	ASTM E 2485/ICC-ES Proc.	No deleterious effects	Passed - No deleterious
	ICC ES (AC 235)***	after 10 cycles	effects after 10 cycles
Mildew Resistance	ASTM D 3273	No growth during 28 day	No growth during 60 day
		exposure period	exposure period
Water Resistance	ASTM D 2247	No deleterious effects	No deleterious effects
•		after 14 days exposure	after 42 days exposure
Taber Abrasion	ASTM D 4060	N/A	Passed 1000 cycles
Salt Spray Resistance	ASTM B 117	No deleterious effects	No deleterious effects
		after 300 hours exposure	after 1000 hours
			exposure
Water Penetration	ASTM E 331	No water penetration	Passed 15 minutes at
	ICC ES (AC 235)***	beyond the inner-most	137 Pa (2.86 psf)
		plane of the wall after	
		15 minutes at 137 Pa	
		(2.86 psf)	
Water Vapor	ASTM E 96 Procedure B	Vapor permeable	EPS 5 perm-inch
Transmission			Base Coat* 40 Perms
			Finish** 40 Perms
Drainage Efficiency	ASTM E 2273	Minimum Drainage	Passed
	ICC ES (AC 235)***	Efficiency of 90%	

<sup>\*</sup> Base Coat perm value based on Dryvit Genesis®

#### c. Structural

TEST	TEST METHOD	CRITERIA	RESULTS
Tensile Bond	ASTM C 297/E 2134	Minimum 104 kPa (15 psi) – substrate or insulation failure	Minimum 213.6 kPa (31 psi)
Transverse Wind Load	ASTM E 330	Withstand positive and negative wind loads as specified by the building code	Minimum 4.3 kPa (90 psf)* 16 inch o.c. framing, ½ in sheathing screw attached at 203 mm (8 inch) o.c.

# d. Impact Resistance: In accordance with ASTM E 2486 (formerly EIMA Standard 101.86):

Reinforcing Mesh/Weight $g/m^2$ (oz/yd²)	Minimum Tensile Strengths	EIMA Impact Classification	EIMA Impact Range Joules (in-lbs)		Impact Test Results Joules (in-lbs)	
Standard - 146 (4.3)	27 g/cm (150 lbs/in)	Standard	3-6	(25-49)	4	(36)
Standard Plus - 203 (6)	36 g/cm (200	Medium	6-10	(50-89)	6	(56)

<sup>\*\*</sup> Finish perm value based on Dryvit Quarzputz

<sup>\*\*\*</sup> AC 235 (ASTM E 2568) - Acceptance Criteria for EIFS Clad Drainage Wall Assemblies



	lbs/in).					
Intermediate™ – 407 (12)	54 g/cm (300	High	10-17	(90-150)	12	(108)
Panzer* 15* - 509 (15)	71 g/cm (400	Ultra High	>17	(>150)	18	(162)
Panzer 20* - 695 (20.5)	98 q/cm (550	Ultra High	>17	(>150)	40	(352)
Detail Mesh® Short Rolls -	27 g/cm (150	n/a	n/a	n/a	n/a	n/a
Corner Mesh - 244 (7.2)	49 g/cm (274	n/a	n/a	n/a	n/a	n/a
*Shall be used in conjunction	with Standard Mesh (re	ecommended for	areas ext	osed to high	traffic).	

## e. Fire performance

TEST	TEST METHOD	CRITERIA	RESULTS
Fire Resistance	ASTM E 119	No effect on the fire resistance of a rated wall assembly	Passed 1 hour
Ignitability	NFPA 268	No ignition at 12.5 kw/m² at 20 minutes	Passed
Intermediate Multi–Story Fire Test	NFPA 285 (UBC 26-9)	<ol> <li>Resist flame propagation over the exterior surface</li> <li>Resist vertical spread of flame within combustible core/component of panel from one story to the next</li> <li>Resist vertical spread of flame over the interior surface from one story to the next</li> <li>Resist lateral spread of flame from the compartment of fire origin to adjacent spaces</li> </ol>	Passed

# 2. The Outsulation MD components shall be tested for:

## a. Fire

TEST	TEST METHOD	CRITERIA	RESULTS
Surface Burning	ASTM E 84	All components shall have a:	Passed
Characteristics		Flame Spread <u>&lt;</u> 25	
		Smoke Developed ≤ 450	

# b. Durability

TEST	TEST METHOD	CRITERIA	RESULTS
Reinforcing Mesh			
Alkali Resistance of	ASTM E 2098 (formerly	> 21dN/cm (120 pli) retained tensile	Passed
Reinforcing Mesh	EIMA 105.01)	strength after exposure	
EPS (Physical Properties)			
Density	ASTM C 303, D 1622	15.2-20.0 kg/m³ (0.95-1.25 lb/ft³)	Pass
Thermal Resistance	ASTM C 177, C 518	4.0 @ 4.4 °C (40 °F)	Pass
		3.6 @ 23.9 °C (75 °F)	Pass
Water Absorption	ASTM C 272	2.5 % max. by volume	Pass
Oxygen Index	ASTM D 2863	24% min. by volume	Pass
Compressive Strength	ASTM D 1621 Proc. A	69 kPa (10 psi) min.	Pass



Flexural Strength	ASTM C 203	172 kPa (25 psi) min.	Pass
Flame Spread	ASTM E 84	25 max.	Pass
Smoke Developed		450 max.	Pass

#### 1.05 SUBMITTALS

- A. Product Data: The contractor shall submit to the owner/architect the manufacturer's product data sheets describing products, which will be used on this project.
- B. Shop Drawings for Panelized Construction: The panel fabricator shall prepare and submit to the owner/architect complete drawings showing: wall layout, connections, details, expansion joints, and installation sequence.
- C. Samples: The contractor shall submit to the owner/architect two (2) samples of the Outsulation MD System for each finish, texture and color to be used on the project. The same tools and techniques proposed for the actual installation shall be used. Samples shall be of sufficient size to accurately represent each color and texture being utilized on the project.
- D. Test Reports: When requested, the contractor shall submit to the owner/architect copies of selected test reports verifying the performance of the Outsulation MD System.

#### 1.06 QUALITY ASSURANCE

#### A. Qualifications

- 1. System Manufacturer: Shall be Dryvit Systems, Inc. All materials shall be manufactured or sold by Dryvit and shall be purchased from Dryvit or its authorized distributors.
  - a. Materials shall be manufactured at a facility covered by a current ISO 9001:2008 and ISO 14001:2004 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
- 2. Contractor: Shall be knowledgeable in the proper installation of the Dryvit Outsulation MD System and shall be experienced and competent in the installation of Exterior Insulation and Finish Systems.
- 3. Insulation Board Manufacturer: Shall be capable of producing the expanded polystyrene (EPS) in accordance with the current Dryvit Specification for Insulation Board, DS131.
- 4. Panel Fabricator: Shall be a contractor experienced and competent in the fabrication of architectural wall panels.
- 5. Panel Erector: Shall be experienced and competent in the installation of architectural wall panel systems and shall be:
  - a. The panel fabricator or
  - b. An erector approved by the panel fabricator or
  - c. An erector under the direct supervision of the panel fabricator

#### B. Regulatory Requirements:

- 1. The EPS shall be separated from the interior of the building by a minimum 15-minute thermal barrier.
- 2. The use and maximum thickness of EPS shall be in accordance with the applicable building codes.

#### 1.07 DELIVERY, STORAGE AND HANDLING

- A. All Dryvit materials shall be delivered to the job site in the original, unopened packages with labels intact.
- B. Upon arrival, materials shall be inspected for physical damage, freezing or overheating. Questionable materials shall not be used.
  - 1. Materials shall be stored at the jobsite in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Minimum storage temperature shall be as follows:
    - a. Demandit\*, Revyvit\* and Reflectit: 7 °C (45 °F)



- b. Ameristone™, TerraNeo® and Lymestone™: 10 °C (50 °F)
- c. DPR, PMR™ and E™ Finishes, Color Prime™, Primus°, Genesis and NCB™: 4 °C (40 °F)
- d. Custom Brick™ Finish: refer to Custom Brick Polymer Specification, DS151
- e. For other products, refer to specific product data sheets
- 2. Maximum storage temperature shall not exceed 38 °C (100 °F). NOTE: Minimize exposure of materials to temperatures over 32 °C (90 °F). Finishes exposed to temperatures over 43 °C (110 °F) for even short periods may exhibit skinning, increased viscosity and should be inspected prior to use.
- C. Protect all products from inclement weather and direct sunlight.

#### 1.08 PROJECT CONDITIONS

#### A. Environmental Requirements

- 1. Application of wet materials shall not take place during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until they are completely dry.
- 2. At the time of application, the minimum air and wall surface temperatures shall be as follows:
  - a. Demandit, Revyvit and Reflectit: 7 °C (45 °F)
  - b. Ameristone, TerraNeo and Lymestone: 10 °C (50 °F)
  - c. DPR, PMR and E Finishes, Color Prime, Primus, Genesis and NCB: 4 °C (40 °F)
  - d. Custom Brick Finish: refer to Custom Brick Polymer Specification, DS151
  - e. For other products, refer to specific product data sheets
- 3. These temperatures shall be maintained with adequate air ventilation and circulation for a minimum of 24 hours (48 hours for Ameristone, TerraNeo and Lymestone) thereafter, or until the products are completely dry. Refer to published product data sheets for more specific information.
- B. Existing Conditions: The contractor shall have access to electric power, clean water and a clean work area at the location where the Dryvit materials are to be applied.

#### 1.09 SEQUENCING AND SCHEDULING

- A. Installation of the Outsulation MD System shall be coordinated with other construction trades.
- B. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffold lines, texture variations, etc.

#### 1.10 WARRANTY

- A. Dryvit Systems, Inc. shall provide a written moisture drainage and limited materials warranty against defective material upon written request. Dryvit shall make no other warranties, expressed or implied. Dryvit does not warrant workmanship. Full details are available from Dryvit Systems, Inc.
- B. The applicator shall warrant workmanship separately. Dryvit shall not be responsible for workmanship associated with installation of the Outsulation MD System.

#### **PART II PRODUCTS**

#### 2.01 MANUFACTURER

A. All components of the Outsulation MD System shall be supplied or obtained from Dryvit or its authorized distributors. Substitutions must be approved by Owner/Architect.

#### 2.02 MATERIALS

- A. Portland Cement: Shall be Type I or II, meeting ASTM C 150, white or gray in color, fresh and free of lumps.
- B. Water: Shall be clean and free of foreign matter.



#### 2.03 COMPONENTS

- A. Air/Water-Resistive Barrier Components
  - 1. Dryvit Backstop\* NT: A flexible, polymer-based, noncementitious water-resistive coating and air barrier available in Texture and Smooth.
  - 2. Dryvit Grid Tape™: An open weave fiberglass mesh tape with pressure sensitive adhesive available in rolls 102 mm (4 in) wide by 91 m (100 yds) long.
  - 3. Dryvit Backstop DMS: A sprayable, single step air/water-resistive barrier and adhesive.
    - NOTE: Backstop DMS is not approved for use over wood based substrates.
- B. Flashing Materials: Used to protect substrate edges at terminations.
  - 1. Liquid Applied: An extremely flexible water-based polymer material, ready for use.
    - a. Shall be AquaFlash and AquaFlash Mesh
  - 2. Sheet Type:
    - a. Shall be Flashing Tape and Surface Conditioner
      - 1) Dryvit Flashing Tape™: A high density, polyethylene film backed with a rubberized asphalt adhesive available in rolls 102 mm (4 in), 152 mm (6 in) and 229 mm (9 in) wide by 23 m (75 ft) long..
      - 2) Dryvit Flashing Tape Surface Conditioner™: A water-based surface conditioner and adhesion promoter for the Dryvit Flashing Tape.
- C. Adhesives: Used to adhere the EPS to the air/water-resistive barrier, shall be compatible with the air/water-resistive barrier and the EPS.
  - 1. Cementitious: A liquid polymer-based material, which is field mixed with Portland cement.
    - a. Shall be Primus or Genesis
  - 2. Ready mixed: A dry blend cementitious, copolymer-based product, field mixed with water.
    - a. Shall be Primus° DM, Genesis° DM, Genesis° DMS, Rapidry DM 35-50 or Rapidry DM 50-75
- D. Insulation Board: Expanded Polystyrene meeting Dryvit Specification for Insulation Board, DS131
  - 1. Thickness of insulation board shall be minimum 51 mm (2 in).
  - 2. The back side of the insulation board shall have 6.4 mm x 25 mm (1/4 in x 1 in) grooves running vertically and spaced 305 mm (12 in) on center (see Detail 0MD 0.0.04).
  - 3. The insulation board shall be manufactured by a board supplier listed by Dryvit Systems, Inc.
- E. Insulation Board Closure Blocks: Expanded Polystyrene meeting Dryvit Specification for Insulation Board, DS131. The Closure Blocks shall measure a minimum of 152 mm (6 in) in height.
- F. Dryvit Starter Strip
  - 1. A 51 mm x 152 mm x 1.2 m (2 in x 6 in x 4 ft) piece of aged expanded polystyrene configured to receive the Dryvit Track™ and Vent Track™. It is required at the base of all walls, at base of horizontal terminations, and heads of windows and other openings.
- G. Dryvit Vent Assembly:
  - 1. A 51 mm  $\times$  152 mm  $\times$  305 mm (2 in  $\times$  6 in  $\times$  12 in) piece of aged expanded polystyrene, which is configured to contain a formed aggregate matrix material and receive the Dryvit Vent Track. It is required at the base of walls and the base of horizontal terminations and is capable of draining water.
- H. Dryvit AP Adhesive™: A moisture cure urethane-based adhesive used to attach the Dryvit Track and Vent Track to the Backstop NT.
- 1. Dryvit Track:
  - 1. A "J" shaped track complying with ASTM D 1784 and ASTM C 1063 located above the Dryvit Starter Strip.
- J. Dryvit Vent Track:
  - 1. A "J" shaped track complying with ASTM D 1784 and ASTM C 1063 containing a slot for drainage and located above the Dryvit Vent Assembly, along the base of walls and horizontal terminations.
- K. Base Coat: Shall be compatible with the EPS insulation board and reinforcing mesh(es).



- 1. Cementitious: A liquid polymer-based material, which is field mixed with Portland cement.
  - a. Shall be Primus or Genesis
- 2. Noncementitious: A factory-mixed, fully formulated, water-based product.
  - a. Shall be NCB
- 3. Ready mixed: A dry blend cementitious, copolymer-based product, field mixed with water.
  - a. Shall be Primus DM, Genesis DM, Genesis DMS, Rapidry DM 35-50 or Rapidry DM 50-75.
- L. Reinforcing Mesh: A balanced, open weave, glass fiber fabric treated for compatibility with other system materials. NOTE: Reinforcing meshes are classified by impact resistance and specified by weight and tensile strength as listed in Section 1.04.D.1.d.
  - 1. Shall be Standard, Standard Plus, Intermediate, Panzer 15, Panzer 20, Detail and Corner Mesh
  - 2. Shall be colored blue for product identification bearing the Dryvit logo.
- M. Finish: Shall be the type, color and texture as selected by the architect/owner and shall be one or more of the following:
  - 1. Elastomeric DPR (Dirt Pickup Resistance): Water-based, elastomeric acrylic finish with integral color and texture, and formulated with DPR chemistry:
    - a. Weatherlastic\* Quarzputz
    - b. Weatherlastic\* Sandpebble
    - c. Weatherlastic® Sandpebble Fine
    - d. Weatherlastic® Adobe

#### PART III EXECUTION

#### 3.01 EXAMINATION

- A. Prior to installation of the Outsulation MD System, the contractor shall verify that the substrate:
  - 1. Is of a type listed in Section 1.04.C.1.
  - 2. Is flat within 6.4 mm (1/4 in) in a 1.2 m (4 ft) radius.
  - 3. Is sound, dry, connections are tight; has no surface voids, projections, or other conditions that may interfere with the Outsulation MD System installation or performance.
- B. Prior to installation of the Outsulation MD System, the architect or general contractor shall insure that all needed flashings and other waterproofing details have been completed, if such completion is required prior to the Outsulation MD application. Additionally, the contractor shall ensure that:
  - 1. Metal roof flashing has been installed in accordance with Asphalt Roofing Manufacturers Association (ARMA) Standards,
  - 2. Openings are flashed in accordance with the Outsulation MD System Installation Details, DS167, or as otherwise necessary to prevent water penetration.
  - 3. Chimneys, Balconies and Decks have been properly flashed.
  - 4. Windows, Doors, etc. are installed and flashed per manufacturer's requirements and the Outsulation MD System Installation Details, DS167.
- C. Prior to the installation of the Outsulation MD System, the contractor shall notify the general contractor, and/or architect, and/or owner of all discrepancies.

#### 3.02 PREPARATION

- A. The Outsulation MD materials shall be protected by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until completely dry.
- B. Protect adjoining work and property during Outsulation MD installation.



C. The substrate shall be prepared as to be free of foreign materials, such as oil, dust, dirt, form-release agents, efflorescence, paint, wax, water repellants, moisture, frost, and any other condition that may inhibit adhesion.

#### 3.03 INSTALLATION

- A. The system shall be installed in accordance with the Dryvit Outsulation MD System Application Instructions,
- B. The overall minimum base coat thickness shall be sufficient to fully embed the mesh. The recommended method is to apply the base coat in two (2) passes.
- C. Sealant shall not be applied directly to textured finishes or base coat surfaces. Dryvit Outsulation MD System surfaces in contact with sealant shall be coated with Demandit or Color Prime.
- D. High impact meshes shall be installed as specified at ground level, high traffic areas and other areas exposed to or susceptible to impact damage.

#### 3.04 FIELD QUALITY CONTROL

- A. The contractor shall be responsible for the proper application of the Outsulation MD materials.
- B. Dryvit assumes no responsibility for on-site inspections or application of its products.
- C. If required, the contractor shall certify in writing the quality of work performed relative to the substrate system, details, installation procedures, workmanship and as to the specific products used.
- D. If required, the EPS supplier shall certify in writing that the EPS meets Dryvit's specifications.
- E. If required, the sealant contractor shall certify in writing that the sealant application is in accordance with the sealant manufacturer's and Dryvit's recommendations.

#### 3.05 CLEANING

- A. All excess Outsulation MD System materials shall be removed from the job site by the contractor in accordance with contract provisions and as required by applicable law.
- B. All surrounding areas, where the Dryvit Outsulation MD System has been applied, shall be left free of debris and foreign substances resulting from the contractor's work.

#### 3.06 PROTECTION

A. The Outsulation MD System shall be protected from inclement weather and other sources of damage until dry and permanent protection in the form of flashings, sealants, etc. are installed.

#### SECTION 09650 - RESILIENT FLOORING

#### PART 1 GENERAL

#### 1.01 DESCRIPTION OF WORK

A. Work Included: Provide resilient flooring where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

#### 1.02 RELATED REQUIREMENTS

- A. Documents affecting work of this Section include, but are not necessarily limited to General Conditions, Supplementary Conditions and Sections in Division 1 through 16 of these Specifications.
- B. The Contract Documents are complimentary and what is required by any one shall be as binding as if required by all.

#### 1.03 QUALITY ASSURANCE

- A. Qualifications of Installers:
  - 1. Use only skilled and experienced resilient flooring installers for preparation of substrate and actual installation of resilient flooring.
  - 2. Helpers and apprentices used for such Work shall be under full constant supervision at all times by thoroughly skilled resilient flooring installers.
  - 3. In acceptance or rejection of installed resilient flooring, no allowance will be made for lack of skill on the part of the installers.
- B. Responsibility: It will be the Contractor's responsibility to deliver floors to the Owner without blemishes, loose tiles, open joints or loose base.
- C. Pre-Installation Conference: Meet at the project site with Architect and all trades affected by the flooring work and review requirements for the surfaces and conditions which could possibly interfere with successful installation of these materials.
  - 1. Coordinate with all parties who are concerned with flooring work or required to Coordinate with it or to protect it thereafter.

#### 1.04 SUBMITTALS

- A. See Section 01300 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Shop Drawings: Indicate seaming plan.
- D. Selection Samples: Submit manufacturer's complete set of color samples for Architect's initial selection.
- E. Verification Samples: Submit two samples, 12" x 12" in size illustrating color and pattern for each resilient flooring product specified.
- F. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

#### 1.05 DELIVERY, STORAGE, AND PROTECTION

A. Protect roll materials from damage by storing on end.

0819.001 RESILIENT FLOORING 09650 - 1



#### 1.06 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature in storage area between 55 degrees F and 90 degrees F.
- B. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

#### 1.07 EXTRA MATERIALS

A. See Section 01600 - Product Requirements, for additional provisions.

#### PART 2 PRODUCTS

#### 2.01 MATERIALS - TILE FLOORING

- A. Vinyl Composition Tile: Solid vinyl with color and pattern throughout thickness, and:
  - Minimum Requirements: Comply with ASTM F 1700, of Class corresponding to type specified.
  - 2. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E 648 or NFPA 253.
  - 3. Size: 12 x 12 inch.
  - 4. Wear Layer Thickness: 0.020 inch.
  - 5. Total Thickness: 0.100 inch.
  - 6. Manufacturers:
    - a. Amtico Co.
    - b. Azrock Industries, Inc.
    - c. Marley Flexco
    - d. Substitutions: See Section 01600 Product Requirements.

#### 2.02 MATERIALS - BASE

- A. Resilient Base: ASTM F 1861, Type TS rubber, vulcanized thermoset; top set Style A, Straight, and as follows:
  - 1. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E 648 or NFPA 253.
  - 2. Height: See finish schedule on drawings.
  - 3. Thickness: 0.125 inch thick.
  - 4. Finish: Satin.
  - 6. Length: Roll.
  - 7. Color: Color as selected from manufacturer's standards.
  - 8. Accessories: Premolded external corners and end stops.
  - 9. Manufacturers:
    - a. BurkeMercer Flooring Products, Inc.
    - b. Johnsonite, Inc.
    - c. Roppe Corp.
    - e. Substitutions: See Section 01600 Product Requirements.

#### 2.03 ACCESSORIES

A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.



- B. Primers and Adhesives: Waterproof; types recommended by flooring manufacturer.
- C. Moldings and Edge Strips: Metal
- D. Filler for Coved Base: Plastic.
- E. Sealer and Wax: Types recommended by flooring manufacturer.

#### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Verify that sub-floor surfaces are smooth and flat within tolerance and are ready to receive resilient flooring.
- B. Verify that wall surfaces are smooth, flat, are dust-free, and are ready to receive resilient base.
- C. Verify that sub-floor surfaces are dust-free, and free of substances which would impair bonding of adhesive materials to sub-floor surfaces.
- D. Verify that concrete sub-floor surfaces are ready for resilient flooring installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.
- E. Verify that concrete sub-floor surfaces are ready for resilient flooring installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within the following limits:
  - 1. Moisture emission rate: Not greater than 3 lb per 1000 sq ft (7.1 kg per 100 sq m) per 24 hours when tested using calcium chloride moisture test kit for 72 hours.
  - 2. Alkalinity: pH range of 5-9.
- F. Verify that required floor-mounted utilities are in correct location.

#### 3.02 PREPARATION

- A. Remove sub-floor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.
- B. Prohibit traffic until filler is cured.
- C. Clean substrate.
- D. Apply primer as required to prevent "bleed-through" or interference with adhesion by substances that cannot be removed.

#### 3.03 INSTALLATION - TILE FLOORING

- A. Install in accordance with manufacturer's instructions.
- B. Mix tile from container to ensure shade variations are consistent when tile is placed.
- C. Spread only enough adhesive to permit installation of materials before initial set.
- D. Set flooring in place; press with heavy roller to attain full adhesion.
- E. Lay flooring with joints and seams parallel to building lines to produce symmetrical tile pattern.
- F. Install tile to approved pattern. Allow minimum 1/2 full size tile width at room or area perimeter.
- G. Where floor finishes are different on opposite sides of door, terminate flooring under centerline of door.
- H. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated. Secure metal strips after installation of flooring with stainless steel screws.
- I. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce



tight joints.

- J. Install flooring in recessed floor access covers. Maintain floor pattern.
- K. At movable partitions, install flooring under partitions without interrupting floor pattern.
- L. Install feature strips and floor markings where indicated. Fit joints tightly.

#### 3.04 INSTALLATION - BASE

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.
- B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.
- C. Install base on solid backing. Bond tightly to wall and floor surfaces.
- D. Scribe and fit to door frames and other interruptions.

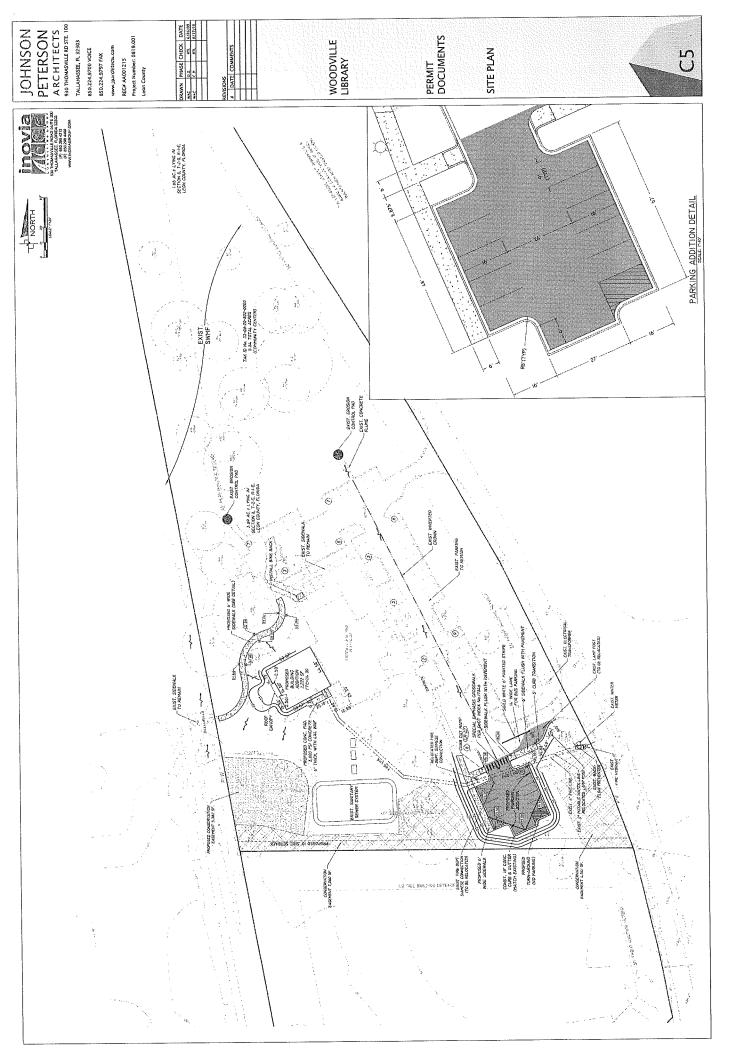
#### 3.05 CLEANING

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean, seal, and wax resilient flooring products in accordance with manufacturer's instructions.

#### 3.06 PROTECTION OF FINISHED WORK

A. Prohibit traffic on resilient flooring for 48 hours after installation.

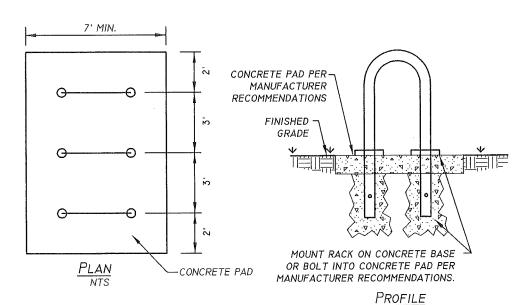
#### **END OF SECTION**



2840 REMINGTON GREEN CIRCLE, SUITE E TALLAHASSEE, FLORIDA 32308



PHONE 850/298-4213 Fax 850/298-4498



## SUGGESTED MANUFACTURES:

GAINESVILLE IRONWORKS SUPPLY, INC. GAINESVILLE, FL. MADRAX, INC. MIDDLETON, WI. I-800-448-7931 FUNCTION FIRST TUCSON, AZ. I-800-245-3742 WWW.BIKERACK.COM

CYCLE-SAFE, INC. GRAND RAPIDS, MI. I-888-950-653I WWW.CYCLE-SAFE.COM

NTS

## NOTES:

(352) 375-8462

- 1. SEE PLAN VIEW FOR ACTUAL NUMBER OF RACKS REQUIRED.
- EACH BICYCLE SPACE SHOULD BE NO LESS THAN 7 FEET LONG BY 4 FEET WIDE (7'x4')ON AN ALL-WEATHER SURFACE.
- 3. EACH BICYCLE SPACE SHOULD HAVE AT LEAST 8 FEET OF VERTICAL CLEARANCE.
- 4. IF AN AISLE IS NECESSARY TO ACCESS THE BIKE PARKING, IT MUST BE A MINIMUM OF 5 FEET WIDE.
- 5. THE RACK SHOULD BE LOCATED A MINIMUM 36 INCHES FROM ANY PARALLEL OF PERPENDICULAR WALL, AS MEASURED TO THE CLOSEST RACK.
- 6. RACKS SHOULD BE LOCATED AT LEAST 3 FEET (36") FROM EACH OTHER TO ALLOW A BICYCLE TO PARK ON EACH SIDE.
- 7. THE RACK SHOULD BE LOCATED SO THAT BICYCLES DO NOT BLOCK SIDEWALKS.
- 8. THE RACK SHOULD BE MADE OF METAL, 1.25"-3" IN DIAMETER.

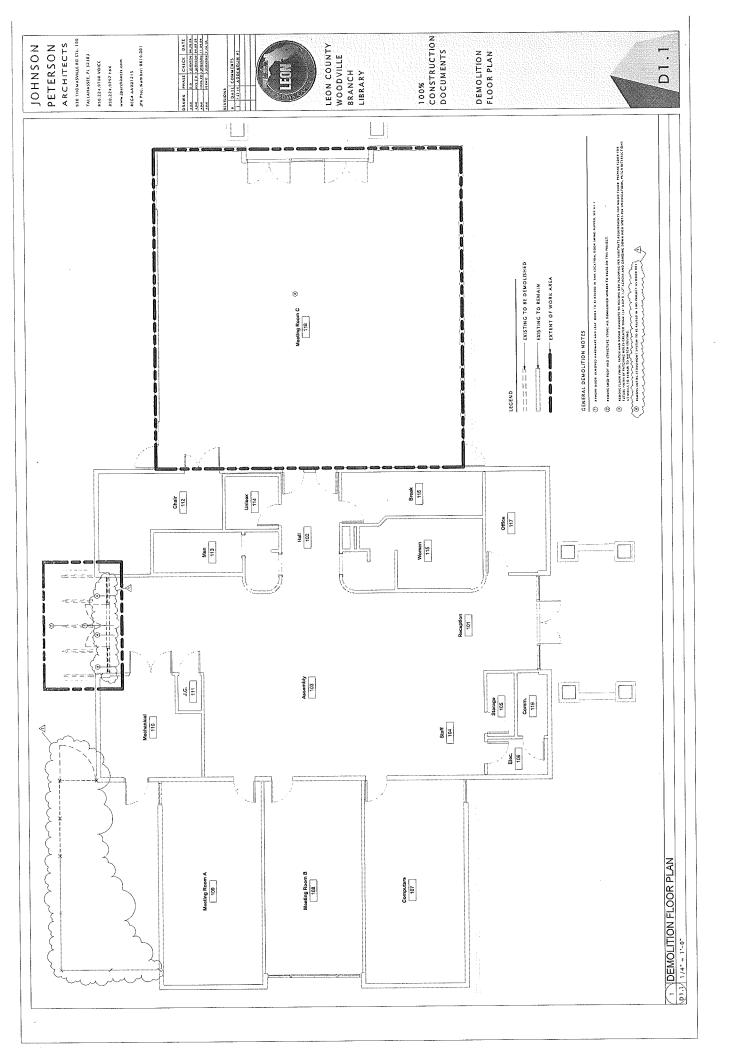
BIKE RACK DETAIL

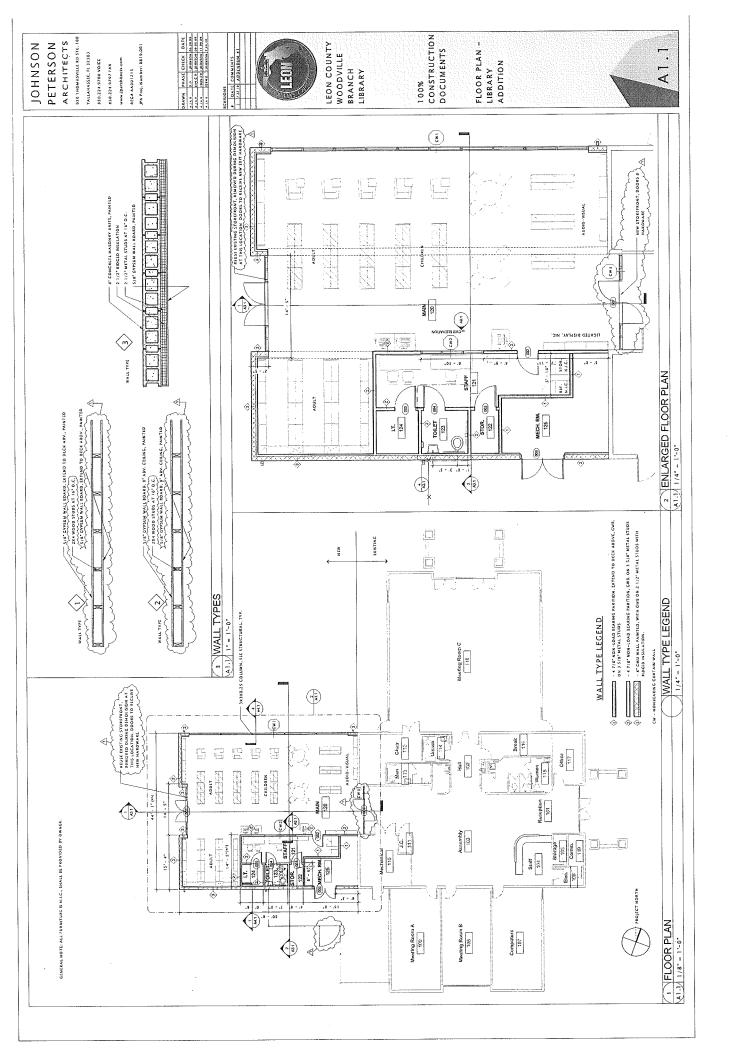
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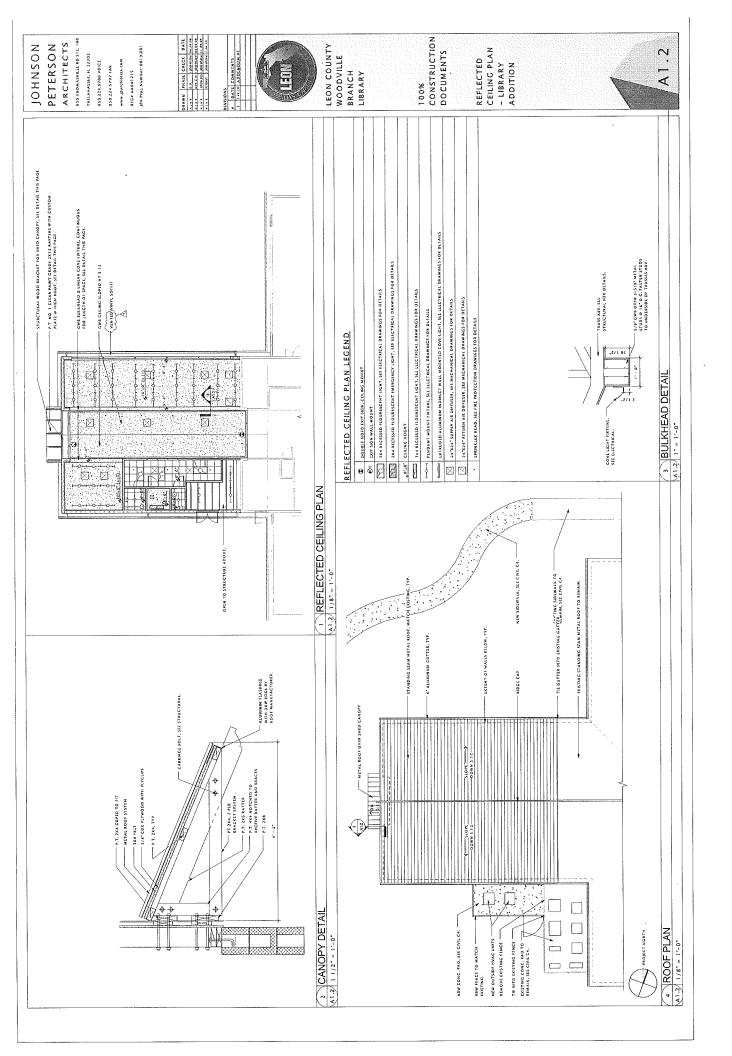
INOVIA CONSULTING GROUP STANDARD DETAILS

PROJECT NAME%%	09-MISCELLANEOUS
SHEET TITLE%%	BIKE RACK DETAIL

FILE NAME%% 09-BR-02.DWG	PROJECT NO.%%
<u>DRAWN BY%%</u> Scott	CHECKED BY%% RTL
<u>DATE%%</u> AS SHOWN	SCALE%% AS SHOWN





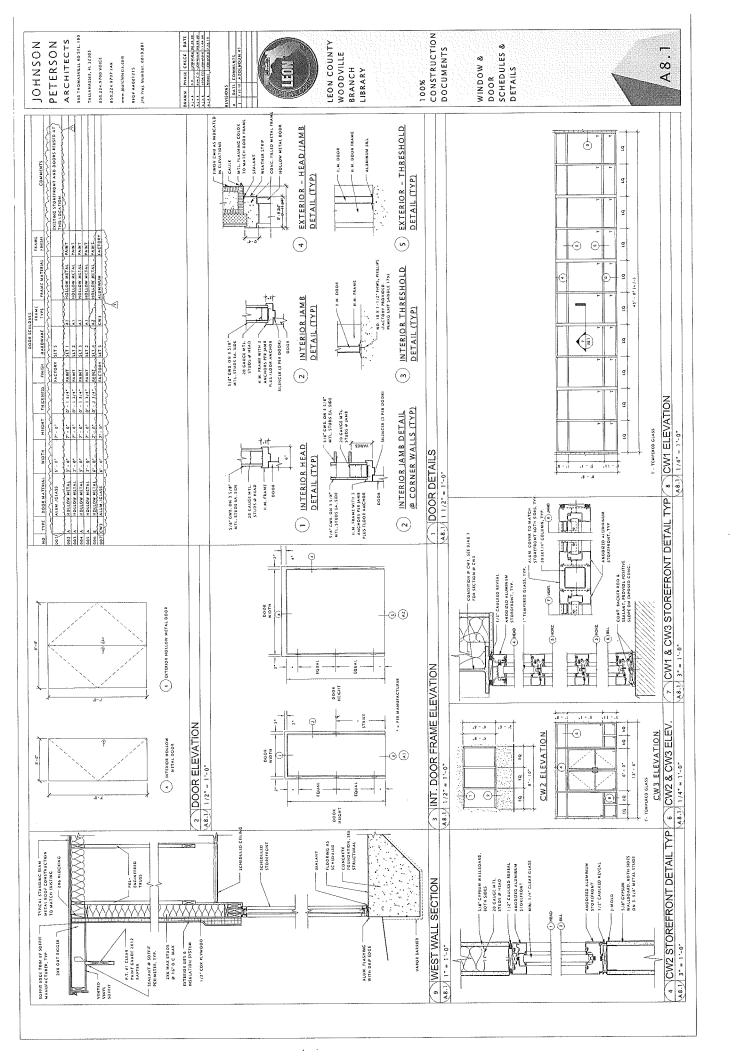


CONSTRUCTION LEON COUNTY WOODVILLE BRANCH LIBRARY 930 THOMASVILLE RD STL. 100 FINISH FLOOR PLAN -LIBRARY ADDITION ARCHITECTS PETERSON JOHNSON REGA AAGG1215 JPA Proj. Number: 0819.4881 DOCUMENTS PENTSTONS

P DATE COMMENTS

1 722-10 ADDENDUM-E1 TALLAHASSEE, FL 32303 850.224.9765 VOICE www.jparchitects.com 850.224.9797 LAX 100% VARIES ALL INIGERS SHILLER TO CHESTING, TO BE SHILLER THE CONTINUE AND SHILLER ALL FINISHES SIMILAR TO EXISTING, TO
BE SELECTED BY ARCHITECT/OWNER
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## POWER LEGEND

<u>LP-1</u>

HOMERUN TO PANEL INDICATED. (CONCEALED). MAXIMUM 3 BRANCH CIRCUITS WITH THREE NEUTRALS IN A SINGLE CONDUIT. 34" MINIMUM. UON PROVIDE #12 CONDUCTORS AS REQUIRED BY NUMBER OF CIRCUITS SHOWN. INCLUDE SEPARATE #12 EQUIPMENT GROUND AND #12 NEUTRAL. FOR HOMERUNS EXCEEDING 100' IN LENGTH PROVIDE #10 CONDUCTORS IN LIEU OF #12 AS INDICATED ABOVE. TEXT INDICATES PANELBOARD AND CIRCUIT NUMBERS.

CONDUIT CONCEALED IN WALL OR ABOVE CEILING (34"C MINIMUM)
UON PROVIDE #12 CONDUCTORS AS REQUIRED BY NUMBER OF CIRCUITS SHOWN.
INCLUDE SEPARATE #12 EQUIPMENT GROUND AND #12 NEUTRALS. MAXIMUM 3 BRANCH CIRCUITS.

CONDUIT RUN IN SLAB OR UNDERGROUND (¾"C MINIMUM)

UON PROVIDE #12 CONDUCTORS AS REQUIRED BY NUMBER OF CIRCUITS SHOWN.

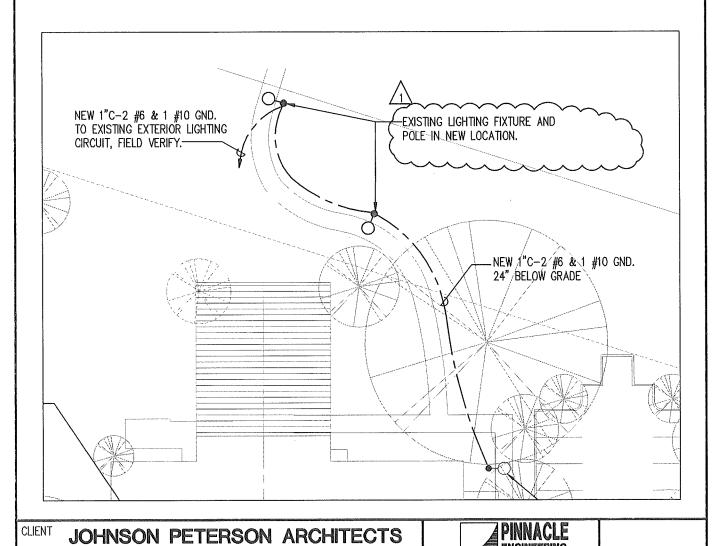
INCLUDE SEPARATE #12 EQUIPMENT GROUND AND #12 NEUTRALS MAXIMUM 3 BRANCH CIRCUITS.

EXISTING CONDUIT. AS INDICATED.

## INDICATED.

- D. COORDINATE WITH ALL TRADES IN SUBMITTAL OF SHOP DRAWINGS, SHOP DRAWINGS SHALL DETAI SPACE CONDITIONS TO THE SATISFACTION OF ALL CONCERNED TRADES, SUBJECT TO FINAL REVIE ENGINEER. IF ELECTRICAL WORK IS INSTALLED, BEFORE COORDINATING WITH OTHER TRADES, WHI INTERFERES WITH WORK OF OTHER TRADES, MAKE ALL NECESSARY CHANGES TO CORRECT THE C AT NO ADDITIONAL COST TO THE OWNER.
- 1.3 CODES AND STANDARDS
  - a. INSTALL ALL WORK IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE FOLLOWING:
  - b. (SBC) FAC 9B-3.047 STATE BUILDING CODE ADOPTED
  - C. (NEPA) NEPA 72, 2009 NATIONAL FIRE ALARM CODE
  - d. (NEC) NFPA 70, 2008 NATIONAL ELECTRICAL CODE
  - 6. (NFPA) MFPA +01, 2003/LIFE SAFETY CODE
  - f. FAC 4A-3.012 STANDARD OF THE NATIONAL FIRE PROTECTION ASSOCIATION ADOPTED.
  - g. (FBC) FLORIDA BUILDING CODE, 2007 (with 2009 REVISIONS)
  - B. STANDARDS OF THE FOLLOWING ASSOCIATIONS OR ORGANIZATIONS SHALL BE FOLLOWED AND APF WHERE APPLICABLE.
    - a. (UL) UNDERWRITERS LABORATORIES
    - b. (IEEE) INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
    - c. (NEMA) NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
    - d. (FM) FACTORY MUTUAL

CLIENT JOHNSON PETERSON ARCH DRAWING TITLE: SYMBOL LEGEND & GENERAL NOTES	HTECTS	D'annede En	PINNACI ENGINEERIN GROUP, P.A	E IG	
PROJECT: WOODVILLE LIBRARY REF. DWG. No.: E0.1 29-112	SCALE: NO SCALE	TALLAHA OFFICE:(860) 422-17	SVILLE ROAD, SUITE BOEE, FLORIDA 2200 13 FAXÇII	162	SKE-1
REVISION: A OWNER REQUESTED CHANGES	DATE: 7/22/10		DLG DESIGN:	RKF	



SCALE:

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1"=30'-0"

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DRAWING TITLE:

REF. DWG. No.:

PROJECT:

**REVISION:** 

WOODVILLE LIBRARY

E0.2

⚠ OWNER REQUESTED CHANGES

SYMBOL LEGEND & GENERAL NOTES

29-112

ENGINEERING GROUP, P.A.

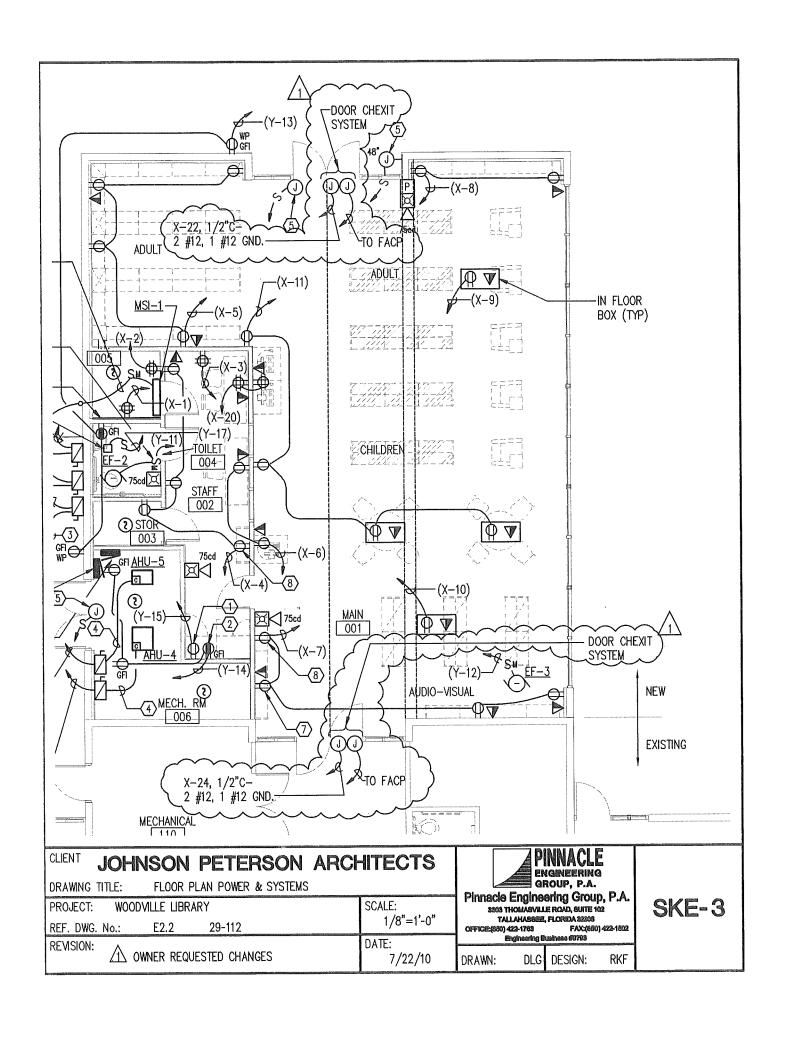
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SKE-2

Pinnacle Engineering Group, P.A.

3903 HOMASVILLE ROAD, BUTTE 192
TALLAHASGEE, FLOREIA 22509
OFFICE-8809 422-4783
Enghassing Bushess 89783

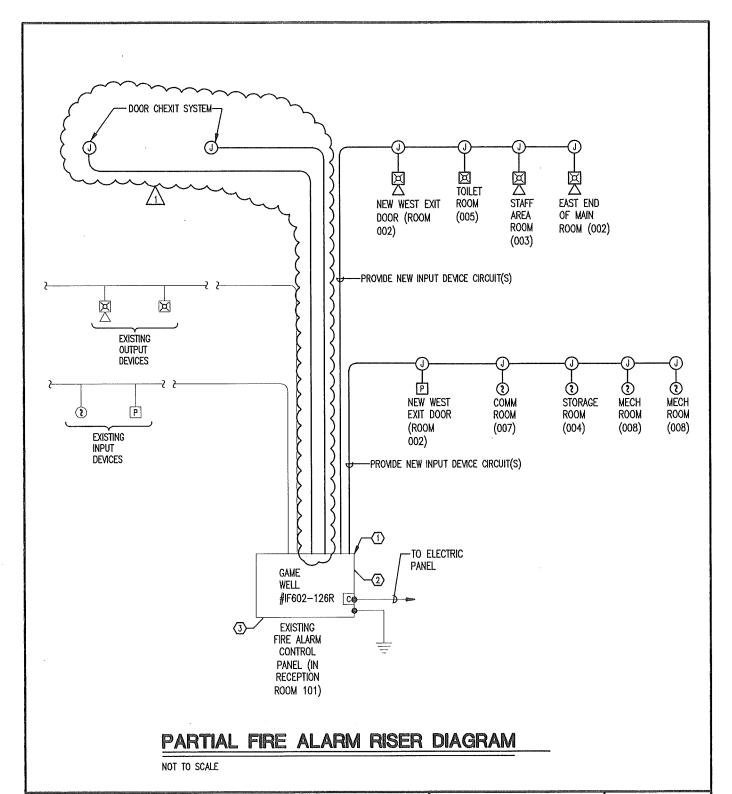
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TOTAL CC		41	39	37	35	33	31	29	27 SF	25	23	21 SF	19 L1	ון לו	15 רו	13 01	11 FL	9 FL	7 R	5 R	3 C	1   1.7	NO.	CKT	SERVICE:	PANEL
TOTAL CONNECTED LOAD: 12.65 KVA									SPACE			SPARE	LTS (SW CORNER)	LTS (002)	LTS (001, 002)	OUTDOOR LTS	FLR RCPTS (001)	FLOOR RCPTS (002)	RCPTS (001)	RCPTS SW CORNER	COMP RCPT (003)	I.T. RCPT (007)	מרסמון ווטוז	DESCRIPTION	120/208V, 3ø, 4W	L SCHEDULE:
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	4 2.53		-			-			-	77,	77	-	4		/ 1.73			. <del>4</del> 6			. <sub>4</sub> 5	0	В			
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. {	1.87			-			1						.72			.35	77.		<del>\$</del>			. <del>4</del> 6	>	ø	MLO 225A	SURFACE
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		1	•	'	١	1	¥						20	20	20	20	20	20	20	20	20	20	Α	ရ	22	E
		'	1	ı	<u> </u>	<u>                                     </u>				_			<u>)-</u> _				_	_	-	<u> </u>	_		P	C. BKR.	RATING:	LOCATION:
	• • • • • • • • • • • • • • • • • • •					SPACE			SPARE	SPARE		DOOK CHEXIT	FF 00	LIS (COVE)	LTS (004, 005, 007)	LTS STAFF AREA	MECH ROOM LTS	FLR RCPTS (002)	RCPTS (001 & 002)	COMP RCPTS (002 & 003)	RCPTS (006 & 007)	LT. RCPT (007)	C C C C C C C C C C C C C C C C C C C	DESCRIPTION	22,000 A.I.C	MECHANICAL ROOM
		42	<b>4</b> 5	38	36	34	32	30	28	26	24	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	20	18	16	14	12	10	8	တ	4	2	NO.	욹		

CLIENT JOHNSON PETERSON ARC DRAWING TITLE: PANEL SCHEDULES	HITECTS		ENC GRO	WACL GINEERIN OUP, P.A.	G	
PROJECT: WOODVILLE LIBRARY REF. DWG. No.: E3.1 29-112	SCALE: NO SCALE	1	ASVILLE I VSGEZ, FI	ROAD, SUITE LORIDA 32309	102	SKE-4
REVISION: 🛆 OWNER REQUESTED CHANGES	DATE: 7/22/10		T	DESIGN:	RKF	



CLIENT	<b>JOHNSON</b>	<b>PETERSON</b>	<b>ARCHITECTS</b>	
DRAWING	TITLE: PARTIAL	FIRE ALARM RISER DIAG	GRAM	Pinnade E
PROJECT:	WOODVILLE LIBRA	ARY	SCALE:	\$203 THO
REF. DWG	6. No.: E3.2	29-112	NO SCALE	TALLA 077902-(880) 422 End
REVISION:	$\Delta$ owner requ	JESTED CHANGES	DATE: 7/22/10	DRAWN:

PINNACLE ENGINEERING GROUP, P.A.

Pinnacle Engineering Group, P.A. 3303 THOMASVILLE ROAD, SUITE 102 TALLAHASSEE, FLOREDA 32208

TALLAHASSEE, FLOREDA 32508 PPICE-(860) 422-1769 FAC(860) 422-1602 Engineering Business 69763

RKF

RAWN: DLG DESIGN:

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